Clinical Lectures
ON
CASES OF DIFFICULT DIAGNOSIS.

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LECTURE V.
ON PERINEPHRITIC ABSCESS.

(*Concluded from p. 145.*)

LET us now see if we can throw any light upon the circumstances tending to give rise to the disease; and the first point is to ascertain under what conditions it chiefly takes place. Of one hundred cases in which the sex is recorded, sixty-one were males and only thirty-nine females; and this greater liability of the former is observable when we group them according to the morbid conditions with which the disease was associated. Thus, when it originated in disease of the kidney, nineteen were males and fourteen females; and the same disproportion is observed where the abscess has been the result of pyæmia, diseased colon, or affection of the bones, the only exception being in the case of pelvic disease, where, as might have been anticipated, the number of females is greater, being in the proportion of five to one.

As regards age, the following table shows the number at each decennial period out of seventy-six cases:—

Under 10 years of age	4
10 to 20 „	9
20 „ 30 „	20
30 „ 40 „	21
40 „ 50 „	12
50 „ 60 „	6
60 „ 70 „	4
	76

It will be remarked that, although perinephritic abscess may occur at any age, it is most common between twenty and forty, more than one-half of the whole number having been affected during this period. The earliest age I have found was that of a child only fourteen months old, recorded in our post-mortem registers; and in none of those I have been able to collect has the age exceeded seventy. Dr. Gibney has quoted some cases of lumbar abscess in children, but I have not included them in the above list, as from the absence of post-mortem examinations there was no proof that the pus originated in the perinephritic tissue.

The right side is more frequently the seat of a perinephritic abscess than the left, for out of ninety-two cases fifty-four were on the right and only thirty-eight on the left. This has been supposed by some authors to arise from the greater liability of the right side to strains and injuries; but this can scarcely be the cause, as the disproportion is greater on the part of the females than on that of the males; in the former it amounted to 70 per cent., and in the latter only to 55 per cent.

Blows and falls upon the loins have long been recognised as a common cause of these abscesses. In one case in our records the right kidney had been torn at its lower third, and was stained with blood; the upper two-thirds were studded with pus, and the whole organ was in a state of suppuration. Accidents of this kind sometimes lead to the formation of a tumour in the renal region, which, however, does not necessarily end in suppuration. One of the best instances of this that has come under my notice is the following:—

CASE 3.—An artillery officer was superintending the removal of a piece of artillery, when the rope suddenly broke and struck him a severe blow on the left side of the loins. When carried to his quarters he passed a quantity of blood in his urine; subsequently he is said to have passed pus, and the left testis became very painful two weeks afterwards. He was brought to me two months after the accident. He was then pale and feeble, but there was no blood or albumen in the urine; he had no rigors or sweatings, and there was no swelling in the lumbar region posteriorly. On pressing the hand deeply into the left side of the abdomen a large tumour could be plainly felt, which was somewhat tender on pressure, and was immovable either with respiration or by the hand. Six months after the accident I again examined him, and found the tumour smaller and less distinctly defined. Two years afterwards it had completely disappeared, and he was restored to his former health. Although this case terminated fortunately, we can readily imagine that if any urine had escaped through the torn structures of the kidney into the tissue around it, suppuration would have been set up, and the effused blood would have been evacuated along with it.

The application of cold, especially when the body is heated, is another circumstance to which many of these cases have been referred. We ought, however, to receive the accounts on this point with a certain amount of distrust, as patients are generally apt to attribute their ailments to cold whenever there is no other apparent cause. In Case 2 the history of exposure to cold was so definite that we could fairly refer the production of the abscess to it; and in Case 4 the symptoms immediately followed a chilled condition of the skin, and the patient ascribed his illness to it.

CASE 4.—A gentleman about fifty years of age, who had often suffered from rheumatic attacks after exposure to cold, attended an evening party on a Christmas night. The weather was very cold, and he inadvertently dressed himself in clothes very much thinner than he was in the habit of wearing. On returning home, he complained of feeling very chilly, and the following day he experienced pains round the abdomen. When I saw him a day or two afterwards, I found the whole abdomen very tender, but there was a very slight rise of temperature. The pulse was only a little quickened, and his pains were consequently attributed to rheumatism of the abdominal muscles. In a few days afterwards the pains of the abdomen ceased, and were replaced by a fixed pain in the right side of the back towards the lower part. His sufferings gradually increased, and he would not permit a proper examination on account of the great tenderness of the part. For some weeks these symptoms continued unabated, when a swelling showed itself in the right lumbar region, in which, however, fluctuation could not be detected; sweatings came on, he lost flesh rapidly, and a hectic flush appeared upon the cheek. We were waiting for evidence of the formation of pus, in order that an opening might be made, when he was one day attacked with severe rigors, the pulse became rapid, the tongue brown, and, on examining the tumour, it was found to be much flatter than before, the whole surface had become of a dark colour and was emphysematous. Free incisions were made into the part, but gangrene showed itself in a short time, and he sank in a few days. No post-mortem could be obtained.

In a considerable number of cases of perinephritic abscess, as in Case 1, the symptoms come on suddenly and without any cause to which they can be assigned, and as there is no evidence of an affection of the kidney we are at a loss to what we should attribute the disorder. Perhaps a searching inquiry might elicit in many instances of this sort that the general health had become deteriorated, and had evinced itself by the occurrence of boils, whitlows, or some other form of local suppuration.

In the majority of the cases I have collected the disease was ushered in with pain of the loins; in some it was from the first referred to the part at which the abscess was afterwards observed; in others there was only a general aching across the back, which subsequently became fixed in one side. Out of seventy-seven cases in which the history is sufficiently recorded to enable us to ascertain the mode of invasion, pain was the prominent initial symptom in fifty. When the abscess resulted from a previous disease of the kidney, pain ushered in the disease in twenty out of twenty-four; but when it occurred from other causes, or appeared to arise without any apparent reason to which it could be fairly assigned, only twenty-eight out of fifty referred to it as the first symptom which attracted their attention. This might have been anticipated from the morbid conditions found in these cases after death, for where inflammation has arisen from a scrofulous kidney, or from a kidney filled with pus, the perinephritic inflammation, being suddenly excited by the contact of an irritating fluid, would naturally first evince itself by pain in the part affected.

In another group of cases severe rigors ushered in the malady, but this was chiefly in "primary" cases; of these,

ten out of fifty showed this method of invasion, whilst only three out of twenty-four kidney cases presented shivering as the earliest symptom. Altogether, either rigors or other symptoms of fever preceded pain in the loins in twenty-five out of seventy-seven cases. Are we now to look upon the rigors as always the result of the irritation set up in the neighbourhood of the kidney, or may not the perinephritic inflammation be sometimes the result of a general disorder of the system? I think the latter is the case in many instances, and that local conditions, the exact nature of which we do not comprehend, probably determine the seat of the morbid condition resulting from it. In one person exposure to cold is followed by pneumonia, in another by erysipelas, in another by suppuration in the loins; but the rigors, so often ushering in each form of disease, appear to indicate the general, not the local, injury inflicted on the system. This seems to be borne out by the fact that fever without marked shiverings is more frequently an initial symptom, and precedes pain in the loins, in the primary than in the kidney cases, for in the former seven out of fifty, in the latter only two out of twenty-four, are recorded as having commenced in this way.

Seven cases out of seventy-seven are recorded as having exhibited symptoms connected with the urinary organs as the first indication of the disease; of these, three occurred in kidney cases and were the result of long-standing renal mischief, whilst four were in persons previously healthy, in all of whom blood was present in the urine and resulted from injuries inflicted upon the kidneys.

We have seen how the cases differ in their earliest stage—that some begin with pain alone, whilst others commence with fever preceding any local indications of mischief. We must now inquire as to the course and progress of the malady.

In regard to the symptoms we shall have to recognise three classes. In the first there are no symptoms or physical signs pointing to suppuration near the kidneys, or they are masked by more prominent manifestatations of illness, and the physician is surprised to find after death a huge abscess of the existence of which he had no suspicion. Such instances occur occasionally in pyæmia or after fevers, the suppuration in the loins being only the result of the general infection of the whole system, and the vital powers of the patient being too much depressed to permit of the manifestations of the symptoms that usually indicate the local complication. In the second class, as in the second case we have selected for our study, the symptoms come on suddenly, the fever is high, the pain excruciating, the course of the disease rapid, and suppuration is quickly established. In the third class, as in our first case, the time of the onset is more difficult to determine, the progress is slow, the fever moderate, the pain often comparatively slight, suppuration takes place very gradually, and the case may drag on for a long period. The acute form is much more common than the chronic, and the description of the disease by authors seems to have been mostly drawn from it. I should wish to have been able to group the cases I have collected under the three heads of latent, acute, and chronic perinephritic abscess, for the purpose of analysis, but, unfortunately, the duration of each case is rarely given with sufficient exactness to enable this to be satisfactorily attempted, so that I have been obliged to arrange them according to the condition of the patient before the commencement of the disease, and have included under the head of "primary perinephritic abscess" all those previously healthy, whilst those who were affected with kidney or other visceral maladies capable of setting up the abscess I have arranged under the head of "secondary perinephritic abscess."

Let us, then, examine the chief symptoms that have been present during the course of the illness. The pain which ushered in the disease was seldom at first very severe; it was ordinarily of a dull heavy character, and in some instances is described as a sensation of heaviness rather than of pain; but, as a rule, it rapidly increased in severity, becoming sharper and more lancinating as the formation of pus progressed, until in many it became so agonising that the patient was unable to restrain his cries or groans. This has been, in some instances that have fallen under my own observation, so striking that I have been inclined to think the person was exaggerating his sufferings, more especially when no swelling was present to point out with certainty the cause of his extreme distress. I have seen the pain come on at intervals with extreme severity, a dull continuous uneasiness being alone complained of in the intervals; and I have known this paroxysmal character delude physicians of great experience into the belief that it was only neuralgia from which the patient was suffering. The pain is generally increased by all motions of the body, even by coughing, so that the recumbent position is preferred, and the unaffected side is chosen in order that the lumbar muscles may be as much as possible maintained at rest. In some instances the pain is stated to have been increased whenever the bowels were moved; but whether this arose from the abdominal muscles being called into play, or from irritation of the colon, cannot be determined from the instances recorded. As the disease progresses, the pain is seldom limited to the lumbar region, but shoots across the abdomen, or radiates downwards to the iliac fossa, the back of the hip, or even down the thigh. In almost every instance the loin is tender upon pressure, even at an early period, and, as the formation of pus proceeds, this often increases to such a degree that the patient refuses any examination, lest the movement of his body or the pressure of the fingers of the physician should bring on a paroxysm of pain.

The amount of fever varies greatly in different cases, but it almost always increases as soon as a swelling appears on the loins, and is then associated with rigors and severe sweatings. It was, as a general rule, a more prominent symptom in the "primary cases," it being recorded as severe in 32 per cent. of these, and accompanied by repeated rigors in 14 per cent.; whilst fever was marked as a prominent symptom in only 12 per cent., and associated with frequent rigors in only 9 per cent. in the "secondary" class. In three instances the attacks of fever were distinctly intermitting from the first, and their periodic character was so strongly marked that the disease was looked upon as ague. These were all cases of "primary abscess," and were of course more likely to mislead the physician from the urine presenting no abnormal character. I have seen two cases in which there was a marked cessation of pain and subsidence of fever a few days before the swelling of the loins appeared, and I suspect this must have arisen from the softened condition of the muscles producing a diminution in the tension of the inflamed parts.

Constipation was often remarked in the cases I have collected, and in one instance it was suggested by Dr. Moxon that it might be the result of the pressure of the abscess upon the sympathetic nerves. I scarcely think it is necessary to seek for an explanation of it in nervous derangement, for, as has been before mentioned, any effort at relieving the bowels is in many cases attended with a great aggravation of the pain, and consequently the patient is apt to allow an accumulation to take place, and in addition to this, as we have before seen, the coats of the colon are liable to be softened from the pressure of the pus surrounding it. Diarrhœa was recorded in a few instances, but I have only found it noticed where disease of the kidney was present, and as it usually showed itself towards the termination of the case, it was not unlikely of pyæmic or uræmic origin. Vomiting occasionally occurred, but it was also more common in "secondary" than "primary" cases, so that it may be also referable to the co-existing affection of the urinary organs. The appetite generally seems to fail at an early period, even when the fever is not high and the pain not excessive; and loss of flesh proceeds rapidly, but is most marked in the acute cases. You will, however, observe in our first case that the patient gained flesh to a considerable extent, although resolution of the inflammation had not taken place.

The abscess generally forms a tumour in the lumbar region, but occasionally it bursts into one of the neighbouring organs; this usually occurs into the pleura. I find eight cases out of fifty in which a chest complication was noticed. In most of these the patient was suddenly attacked with dyspnœa, often without any marked increase of pain or fever; whilst in others the expectoration of a large quantity af pus was the first indication that perforation of the diaphragm had been produced. Such cases do not necessarily end fatally; most of them seem to have experienced relief from the discharge of the pus through the bronchial tubes. It is most important always to bear in mind this termination of perinephritic abscess, as in some instances the previous abdominal symptoms seem to have been overlooked, and the dyspnœa, cough, and purulent expectoration had led to the supposition that the patient was suffering from tubercular phthisis. Pneumonia was recorded in four cases out of fifty, and was probably in some of

pyæmic origin, although instances are mentioned in which the patients recovered from it as well as from the original malady. In two cases slight jaundice presented itself, probably from the pressure of the abscess, but it was of rare occurrence, and did not appear to have modified the ordinary cause of the disease.

The physical signs are of great importance; indeed, although we may often guess at the presence of the malady, it is seldom we can diagnose it if they are absent. At an early stage there is usually a dull note on percussion over the loin, and this becomes more marked as the disease progresses. A swelling in the loin was recorded in sixty-five out of seventy-four cases. In a few instances it was present when the patient was first seen by the physician, and the previous pain and fever had no doubt been very slight or had been overlooked. In the majority a tumour was not perceived until the inflammation had made considerable progress, and then the depression of the loin between the lower ribs and the crest of the ilium was seen to be filled up with a general swelling, the skin presenting its normal appearance. In most cases, as times goes on the tumour increases in size, extending to the side of the abdomen, œdema of the integuments takes place from the pressure of the subjacent abscess, the skin becomes red, and, finally, unless the pus is discharged into one of the neighbouring organs or is opened by the knife, fluctuation can be perceived. Fluctuation can in some cases be best discovered by placing one hand in front and the other on the loin whilst the patient rests on his hands and knees. The presence of the lumbar tumour was equally common in "primary" and in "secondary" cases, for it was recorded in each as present in 88 per cent. In some chronic cases, as in Case 1, a tumour can be discovered in the region of the kidney long before the appearance of a lumbar swelling. It then lies deeply, and is covered by the colon, so that the percussion note in front of it is tympanitic, and it is immovable either by the respiration of the patient or by the manipulation of the physician. Even in some acute cases the swelling might perhaps be detected in the abdomen at an early period, were it not for the tense condition of the abdominal muscles and the extreme tenderness that renders the patient unable to endure the requisite examination. In a small number the swelling presents itself in some other situation, especially in the iliac fossa, or below Poupart's ligament. This is most common when the perinephritic abscess has resulted from pelvic inflammation, or from suppuration originating in perforation of the appendix vermiformis. Under such circumstances, although pus may be found around the kidney, there may not have been sufficient tension to set up the changes that lead to the formation of a tumour in the loins. When the pus finds its way into the pleura or the colon, or, as is more rarely the case, into the peritoneum, the tumour of the loins, if one has been formed, becomes suddenly soft and flaccid; but it is rare for emphysema to occur, as in Case 4.

Considerable importance has been assigned by some authors to the position of the limb of the affected side, and it has been described as an important symptom of deep-seated abscess. Thus in Case 1 the thigh was at one time flexed on the pelvis, but the patient was subsequently able to walk about the ward upright. In five of the collected cases the patient was described as walking lame, with the heel drawn up and the toes first touching the ground, even at an early period of the disease; and the thigh is stated to have been flexed on the pelvis during the progress of the disease in ten. Three of these died, and in all either suppuration or inflammation of the psoas muscles was found on post-mortem examination, so that we may conclude the symptom in question arises from such a condition. It is noticed in some cases that the patient when sitting rested on the ischium of the opposite side, but this would be the most natural position for anyone to use who was suffering from severe pain in one loin.

When the abscess is the result of a previous disease of the kidney, we should expect to find some indication of it in the urine. It is recorded that in two cases the urine was only albuminous, in two there was more or less hæmaturia, whilst in eight out of twenty-four a deposit of pus in the urine was noticed. It is probable that in the remaining cases the examination of the urine had been neglected or the results had not been recorded. In the "primary" cases it is interesting to remark that none presented simply albuminous urine, but in five out of fifty the presence of pus was occasionally remarked during the progress of the malady. You will remember that in Case 1 pus was at first observed, but that it afterwards disappeared, and in all probability this occasional occurrence of small quantities of pus in the urine points rather to pressure upon the renal vein by the circumjacent inflammation than to an organic change in the organ itself.

The duration of the disease varies greatly, as will be seen by reference to the first two cases I have selected for our consideration. Trousseau says that a tumour begins to appear in the loins ordinarily after a period of eight to fifteen days, but this must be only in very acute cases.

In most "primary" cases immediate improvement follows the opening of the abscess, and the wound readily heals; but where the disease is chronic fistulæ may remain unhealed for months or years. This is more especially so when the perinephritic inflammation has resulted from the irritation set up by calculi in the kidney.

The diagnosis is often extremely difficult in the early stages; indeed, in many instances you can only suspect that inflammation is going on around the kidney, as you have not sufficient evidence to prove it.

Before a tumour has presented itself you are most liable to confound the disease with various fevers in their early stages, with lumbago and neuralgia, and with nephritic colic. But the chief points you have to bear in mind at this period are—that perinephritic abscess is extremely rare; that it is attended with fever, and usually with tenderness of the affected part; that it is most apt to occur in persons who have suffered from renal calculi, pyelitis, or scrofulous kidney, after operations on the bladder or urethra, or where the patient has been subject to injuries or strains of the loins, or to exposure to cold or wet when he was in a heated condition. In small-pox and other eruptive fevers there is often excessive pain of the back, attended with an elevated temperature; but the pain of the loins is more general than in perinephritic abscess; there is no marked tenderness, and in a few days the appearance of the eruption will put an end to all doubt. It differs from lumbago in the pain being limited to one side, in being more continuous and less aggravated by movement, in the presence of high fever and quickness of pulse, and in its being often ushered in by well-marked rigors. When the pain comes on suddenly and is severe, it may simulate nephritic colic, but the presence of high fever, the absence of retraction of the testis, irritability of the bladder, and of albumen, pus, or blood in the urine, are well-marked points of difference. You will naturally object that the urine may present all these morbid conditions where the kidney has been previously diseased; but you must remember that the onset of "secondary" cases is usually slower and the pain less severe than in "primary" cases.

It is of great importance that you should be able to ascertain the presence of a tumour as early as possible, and in Case 1 you will observe it was perceptible in the abdomen long before any appearance of lumbar swelling. The chief difficulty, as I said before, arises from the tension of the abdominal muscles, and the great tenderness that prevents a complete examination. It has been suggested that under such circumstances the patient should be examined under chloroform, and there is no doubt that in any difficult case this procedure should be employed.

As regards the tumour, you are not likely to confound it with enlargement of the liver or spleen, or with an aneurysm. Its fixed and deep position behind the colon, its immobility on respiration or pressure, and the absence of pulsation will distinguish it, when, as in Case 1, it is felt in the abdomen; whilst the diffused lumbar swelling, gradually increasing and eventually producing œdema and redness of the skin, points out that a deep abscess is coming to the surface.

We are told that perinephritic abscess may be confounded with cancer of the kidney; but the severe and frequent hæmaturia, the absence of fever, the marked anæmia, and the implication of other organs, so characteristic of that disease, will save you from mistake. You are more likely to look upon a dilated kidney when it forms a well-marked tumour in the abdomen as an abscess behind a kidney already in a diseased condition; for in both you have a tumour, fever, loss of flesh, sweatings, and perhaps rigors. In dilated kidney, however, the tumour is more defined and smooth, there is no diffused swelling of the loins and no œdema, and there is rarely the severe pain or the rapid course of perinephritic abscess. You may confound it, again, with disease of the vertebræ, especially when the latter is associated with abscess pointing in the back; but in spinal disease you generally find tenderness or projection of

the bones, preceded for some time by pain in the back and general ill-health; the fever is less severe, the progress slower, and the abscess is of much smaller dimensions. Still, you must bear in mind that disease of the transverse processes of the vertebræ is in some cases the exciting cause of abscess round the kidney.

The treatment of perinephritic inflammation must be obviously very different before and after the formation of an abscess. So long as fever and pain of the loins are the only symptoms, it should be your endeavour to prevent the formation of pus, and you will naturally inquire whether there is any chance of this desirable object being attained. I think this should be answered in the affirmative, for in Case 3, although the kidney had been severely injured and remained for a considerable period enveloped in blood or exudation, the patient recovered without any abscess being produced. Some authors have recorded cases in which symptoms were present that ordinarily accompany the early stages of perinephritic abscess, and yet no suppuration followed them; but these were all "primary" cases, and I am not aware of any which had this fortunate termination where there had been previously well-marked signs of scrofulous kidney or pyelitis.

In the early stage, then, the most important remedy you can employ is perfect rest in the recumbent position. By this you not only lessen vascular congestion, but you prevent the irritation likely to be set up by the movements of the lumbar muscles. The bowels are almost always constipated, and any accumulation in the colon is apt to produce mischief. You are therefore advised to prescribe aperients, and the most useful drugs of this class are salines, which should be given in sufficient doses. In case of the pain being very severe you would of course have recourse to opium, the subcutaneous injection of morphia generally giving most relief. As regards local treatment, leeches may be used, due consideration being taken of the state of the patient's strength. Cold applications to the loins, such as the use of ice and evaporating lotions, are recommended by many authors, and will no doubt be useful in primary cases; but I think hot fomentations and poultices are more apt to give relief where the inflammation has resulted from chronic disease of the kidneys.

All writers on this complaint are agreed that is necessary to open the abscess as soon as you have good evidence that pus is really formed. This is not only to obviate the ill effects of the absorption of the pus and to lessen the duration of thetdisease, but also to prevent the bursting of the abscess in o the pleura, or its burrowing downward into the iliac efossa, or finding its way along the psoas muscle into the groin.

Different m thods of operating have been employed. The older surgeo ns used caustic, whilst modern practitioners trust to the knife or trocar. Caustic was formerly used from a dread of hæmorrhage, but it has now been generally abandoned, and the surgeon must of course use his own judgment as to the other methods of procedure. The aspirator seems to me to be most likely to be useful where the abscess is tolerably superficial, and where the course of the disease has been rapid; but a free incision would appear more likely to be beneficial in chronic cases, and when disease of the kidney is suspected of having given rise to the mischief.

The results of an early opening of the abscess in "primary" cases are most encouraging, for out of the cases I have collected only five deaths took place out of thirty-five; of thirteen females none died, whilst five out of twenty-two succumbed amongst the males. It was less successful in "secondary" cases, ten having died out of twenty; those that recovered had either suffered from affections of or operations on the bladder, or from the irritation set up by calculi; and none of the successful cases had presented symptoms of scrofulous kidney or suppurative pyelitis. Four cases in which the abscess had originated from pelvic disease or affections of the colon were operated upon, and two died; one was affected with pyæmia, and the issue of this was also fatal. The operations were about equally successful, whichever side was affected; three having died out of eighteen when the right, and two out of ten when the left, was the seat of the suppuration.

ON July 25th the members of the Metropolitan Asylums Board visited the Caterham Asylum. The result of the inspection was satisfactory

PROFESSOR SCHIFF'S EXPERIMENTS ON THE EXCITABLE AREA OF THE CEREBRAL CORTEX.

BY WM. R. HUGGARD, M.A., M.D., M.R.C.P. LOND.

PROFESSOR SCHIFF has kindly given me permission to report some of his hitherto unpublished experiments on the functions of the excitable area of the cerebral cortex. Most of these experiments I have myself witnessed. It is known that Professor Schiff regards this portion of the brain as presiding, not over motility, but over tactile sensibility.[1] He has recently devised some new experiments that tend strongly to confirm his view. It is to be understood that the following remarks have reference only to such animals as dogs, cats, rabbits, rats, &c. Monkeys yield results in many respects different.

The doctrine ordinarily accepted, in England at any rate, is that the excitable area of the cortex is motor, or perhaps psycho-motor, in function. The grounds on which this belief is based are that the irritation with a weak electric current of various definite parts of this area give rise to definite and localised movements on the opposite side. Within certain limits the movements are the same when the same spot is irritated; and precise spots for the various groups of movements have been mapped out. If this portion of the cortex be removed, some of the movements of the animal are performed with less certainty on the side opposite the lesion. When the animal has quite recovered from the wound, if the same part of the brain be again exposed, irritation no longer gives rise to movement. From these facts, and from kindred experiments on monkeys, it has been inferred that the excitable spots in the cortex are motor centres. The facts on which the inference is based are unimpeachable; but they do not warrant the inference. The facts are true, but they are not the whole truth. Professor Schiff's experiments show, not merely that an important element, but that the essential factor, has been overlooked. These experiments establish the following points: (1) that the removal of the excitable area of the cortex, or so-called motor region, permanently abolishes tactile sensibility; (2) that it does not diminish either sensibility to pain or motor power, strictly so-called; (3) that the abolition of tactile sensibility is sufficient to account for the alteration in the animal's motility; (4) that the centres of nutrition of the fibres connecting the excitable area of the cortex with the true motor centres are in the ganglia of the posterior roots of the spinal nerves, and that the fibres in question are in physiological continuity with the posterior columns of the cord; (5) that when central[2] tactile sensibility is abolished the so-called motor region is no longer excitable. The gist of the evidence in support of these points will now be stated concisely.

On May 8th an opening was made with a trephine over the left crucial sulcus of a dog. The application of a weak induced current showed that the excitable area was reached. The whole of the excitable area—namely, the sigmoid gyrus, with part of the convolution behind—was then removed. When the animal had recovered from the anæsthesia it ran about as if nothing were amiss. On the smooth floor the right limbs showed some ataxia and uncertainty of movement, with tendency to slip—an appearance that might at first sight seem to be due to muscular weakness. On a rough surface, however, this ataxia, uncertainty of movement, and slipping altogether disappeared, and in running and jumping the animal was quite indistinguishable from a healthy dog. The so-called motor centres had been removed, but motility had not been interfered with, or, rather, it was interfered with only when the animal was on a smooth surface. What was the explanation of this? We shall see presently.

Tactile sensibility was tested and was found to be absent. A clamp with weak spring, to avoid painful pressure (which does not belong to the same class of sensations as touch), was applied to various places on the left side, and on every occasion the animal showed signs of impatience, and shook it off. When it was applied to the right side no notice

[1] See L'Imparziale Med. di Firenze, 1871.

[2] Compare Schiff: Lehrbuch der Muskel und Nerven Physiologie 1858, p. 216.

whatever was taken of it. For example, when the clamp was fixed to the left nostril, lip, or ear, the dog shook its head violently, and so got rid of the offending body. When it was put on the web between the toes of either the fore or hind paw of the left side, the animal either shook it off or removed it with its head. On the corresponding parts of the right side the clamp was quite unnoticed. A current of air, too, on the left ear was sharply resented; on the right ear it was disregarded. On the right side, moreover, when the toes were doubled up, the animal stood without observing the position of the limbs. Sensibility to pain was unaltered. The prick of a pin gave rise to identical phenomena on both sides. On the right side, as on the left, the limb was quickly withdrawn from the pin. After a month the condition was still the same with regard to both varieties of sensation.

The explanation of the slipping, uncertainty of movement, and ataxia is now before us. These phenomena were due merely to loss of tactile sensibility. How could loss of tactile sensibility produce them? The numerous points of support in a rough surface prevented slipping. In the absence of these points slipping could only be avoided by a more delicate balancing of the body. But the very mechanism by which balance is adjusted was thrown out of gear. Hence the uncertainty of movement and ataxia. Loss of tactile sensibility was proved to be present; but it may be thought that loss of tactile sensibility is not enough to account for the phenomena. Experimental proof, however, is at hand. The phenomena were precisely the same, as far as the limbs were concerned, in two dogs, when the posterior column was cut on one side in the cervical region of one dog, and when in the other the excitable area of the cortex on the opposite side was removed. In both cases tactile sensibility was the only function that could be shown to be lost; and in both cases the same form of ataxia—ataxia on a smooth surface—was present. A striking variation of this experiment was made. The excitable area of the cerebral cortex of a dog was removed on one side, and three weeks later the posterior column of the cord in the cervical region was cut on the same side. Apart from traumatic effects, the results in the limbs were identical on both sides; and three weeks after the second operation the only difference between the two sides was that on the side opposite the cortical lesion tactile sensibility was lost in the face as well as in the limbs.

The crowning evidence, however, that the excitable area of the cortex is the area of tactile sensibility is yet to come. In dogs whose posterior columns were cut in the cervical region, if after the lapse of about four days the so-called motor region is laid bare, it is found on both sides to be no longer excitable. If one posterior column only is cut, the opposite side of the brain only is inexcitable. If the posterior columns or posterior roots are cut in the lumbar region, irritation of the cortex still produces movements of the anterior limbs, but not of the posterior.

What is the explanation of this circumstance? Professor Schiff has found by numerous experiments that the disappearance of excitability takes place, not immediately, but on the fourth day after the cutting of the posterior columns. Albertoni discovered a kindred fact in regard to the disappearance of excitability after the ablation of the excitable cortex. The disappearance does not take place at once, but within about four days after the removal of the grey matter. Now, the period that elapses before degeneration, when a nerve is cut from its nutritive centre in the dog, is about four days. The significance of the fact is apparent. It is evident that when the excitable cortex is removed, and when the posterior columns or posterior roots are cut, there is equally a degeneration of the fibres that lead from the excitable area to the true motor centres. The inference is that these fibres are in physiological continuity with the posterior roots, where their nutritive centres are. But the fibres of the posterior roots are sensory fibres, and the fibres of the posterior columns are tactile sensory fibres.

It will, perhaps, be said that this argument proves too much; that it would prove that the fibres going from the excitable area to the true motor centres convey tactile sensibility—that is, convey sensory impressions to a motor centre. The facts as stated, however, do not involve this supposition. The fibres connecting the area of tactile sensibility with the motor centres would transmit that sort of impression that causes a motor discharge. In other words, the grey matter of the excitable area transmutes sensibility into a liberating (probably voluntary) current.

Confirmatory evidence is found in the fact that in young animals the so-called motor centres are not excitable until the animal has learnt to coördinate its movements. In other words, until an association has been formed between tactile sensibility and suitable motions, stimulation of the area of tactile sensibility (so-called motor area) does not send any liberating current to the motor centres. The period of commencing excitability of the cortex is found to vary in different animals according to the period of commencing voluntary movement. Thus in cats and dogs the so-called motor centres are not excitable before the fifth day, while in guinea-pigs they are excitable on the second day. (Jarchanoff.) That the channels for outgoing impulses are already in working order before this is shown by the fact that powerful diffused currents produce general movements. The behaviour of the excitable region under anæsthesia is to the same effect. In an animal recovering from profound anæsthesia the so-called motor centres are found to be inexcitable, though general movements can be caused by currents strong enough to produce pain. Now, it is known that after anæsthesia tactile sensibility returns later than sensibility to pain. The obvious inference is that when tactile sensibility is gone the excitable area no longer responds to stimulation, even though motility and sensibility to pain are still preserved.

It is needful to say a word to prevent confusion between cortical excitability and the excitability of distant parts stimulated by the diffusion of powerful currents. Very weak currents suffice to elicit the definite and localised movements that characterise the stimulation of the various parts around the *sulcus cruciatus*. Powerful currents, on the contrary, are diffused, and excite, probably through the pain-centre, general reflex movements. This distinction, though of capital importance, has not always been borne in mind by investigators, and disregard of it has more than once led to error.

If the so-called motor centres are not really motor centres, why, it may be objected, does stimulation of them give rise to movement? The answer is, that excitability, so far from proving them to be motor centres, tends to prove the reverse—to prove that they are sensory; for no other motor centres are known to be directly excitable. So far as has yet been ascertained, motor centres can be excited only through sensory nerves. The grey matter of the cord, for example, is absolutely inexcitable, according to almost all observers.

One of the greatest difficulties in experimental inquiry is the plurality of causes. This source of error vitiates most of the hitherto recorded researches on the present subject. A cause, lack of tactile sensibility, has been overlooked; and this cause has been demonstrated by Professor Schiff not merely to be present but to be sufficient to account for all the phenomena observed. This oversight on the part of skilful and able experimenters appears to have been due to dropping out of sight the fact that tactile sensibility is different from sensibility to temperature, from sensibility to pain, and from sensibility to pressure; and that its seat and channels of conduction are probably different also.

The whole matter may be summed up in a few words. The excitable area of the cortex in the dog is the area of tactile sensibility, and of this only. The evidence is as follows. 1. Ablation of the area in question permanently abolishes tactile sensibility on the opposite side; sensibility to pain and motility being preserved. 2. The same symptoms, excluding the effects of traumatism, are produced by section of one of the posterior columns, and by removal on the opposite side of the excitable area for the limbs. In removing the excitable area care must be taken not to go deeper than the cortex, otherwise the true motor centres are reached. 3. The abolition of tactile sensibility by cutting the posterior columns of the cord abolishes the excitability of the so-called motor area, when time has been allowed for degeneration of the nerve fibres. 4. When tactile sensibility is annulled by anæsthesia, the excitable area is no longer excitable, even though movements can still be excited by pain.

Geneva.

SMALL-POX IN DUBLIN.—In addition to the cases recently referred to in these columns, another case has been reported in Edmondstown village, near Dublin, and which has been removed to Cork-street Fever Hospital. The guardians of the South Dublin Union have adopted a resolution in reference to this case, to the effect that the person who sent clothes infected with small-pox to the laundry at Edmondstown be prosecuted by the solicitor to the board.

TWO CASES OF NEPHRECTOMY.

WITH REMARKS.

BY GEORGE ELDER, M.D.,
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IN THE LANCET for 1882 my first nephrectomy was published, and the present communication is the fruit of my subsequent experience in this branch of surgery:—

CASE 1. *Acute Suppurative Nephritis; Nephrectomy; Death from Uræmia.*—Mrs. S——, aged forty-five years, was admitted into hospital on March 5th, 1883, suffering from an abdominal tumour. Her mother died at fifty-five years of age from cancer of the breast, but, with this exception, the family history was good. She was married at the age of twenty-one, and had borne nine children, the last two years ago; eight of these are alive and well. Her own health had been robust till eleven weeks prior to admission, when she had what was called "inflammation of the bowels," and of which the symptoms were at first fever, and left abdominal pain. Five weeks subsequently a "lump" on the left side of the body was noticed, and also the fact that her urine had become purulent in character. The rapidity with which the tumour increased, accompanied as it was by frequent rigors, night sweats, diarrhœa, rapid emaciation, and uræmic symptoms in the shape of contracted pupils, dulled comprehension, and rough, dry, skin, evidenced the gravity of the case; in fact, so reduced had she become that her friends feared she would die on the road to the hospital. No history could be elicited indicative of renal calculus, or inflammation of the genito-urinary tract.

The patient was so ill on admission that nothing was attempted for five days beyond such measures, local and constitutional, as the exigencies of her case demanded. It was noted during this period that the urine voided in the twenty-four hours ranged from thirty to forty-five ounces, of which quite two-thirds was pus, and the temperature varied from 100° to 102°. The mental cloudiness which had been noticed before did not become less during her stay in the hospital. When, after the few days' rest, an examination of the tumour was made, it was found to occupy the left half of the abdominal cavity, with the exception of a short space above Poupart's ligament. In the umbilical region it passed beyond the middle line; it was tense and distinctly fluctuant, tender in places, and bulging laterally and posteriorly, and obviously renal in origin. Although the prospects of an operation in the patient's critical state were by no means encouraging, still by it the only chance of saving life was possible.

On the morning of the 11th, by the lumbar incision, I cut down upon and removed the enlarged kidney. It was so firmly adherent to the surrounding tissues, and its walls were so fragile, that considerable time was taken up in its enucleation. Very little blood was lost, and the ureter and renal vessels were ligatured *en masse* by means of carbolised silk. The patient bore the operation as well as was possible under the circumstances. Six hours afterwards three ounces of urine, highly loaded with lithates, were drawn off by catheter; but from this until her death, at 10 P.M., none was secreted. Towards the end she became comatose.

The kidney removed had been converted practically into a large sacculated abscess cavity without a trace of glandular tissue; and the post-mortem examination showed that the other kidney was, by reason of its fatty degeneration, unfit to bear the strain which the operation had thrown upon it.

CASE 2. *Calculous Pyelitis; Nephrectomy; Recovery.*—Mrs. G——, aged forty, living at Hucknall Torkard, was admitted into the hospital on July 17th, 1884, with the following history. With the exception of an uncle, who had died from phthisis, the health of her family had been good, and she had always enjoyed robust health until shortly after her last confinement, two years before. She was married at nineteen years of age, and had borne seventeen children in nineteen years. There was no history of urinary trouble; no gravel, hæmaturia, or renal colic. In fact, there was nothing to excite attention nor call for medical advice until eighteen months ago, when her urine was noticed to be thick and purulent. She also began to lose flesh and suffer from rigors, night sweats, and considerable constitutional disturbance. Her local medical attendant, Dr. Jones, recognising the nature and gravity of the case, sent her to me for operative interference. The urine passed in twenty-four hours averaged twenty-five ounces; it had a neutral reaction and a specific gravity of 1008, and contained a large proportion of pus.

On examination of the abdomen, there was found in the right lumbar region a distinct smooth-surfaced, mobile, and insensitive tumour, evidently renal in origin. On July 24th, whilst the patient was under the influence of bichloride of methylene, I removed the kidney. On account of the size and solidity of the tumour, the usual lumbar incision which had been carried to its full extent, required supplementing by a posterior transverse one, and even then its removal was only possible piecemeal. The first incision into the substance of kidney gave exit to a large quantity of pus and several calculi. There were several more abscesses, each one evidently a dilated calyx, or several thrown into one, and having in their interior one or more calculi. These calculi varied in size from a pea to a pigeon's egg, and had by their numbers so completely disorganised the kidney as to leave no choice but extirpation. The renal vessels and ureter were tied in one piece. From the bottom of the wound there was very considerable oozing, which pressure checked. The operation having lasted a considerable time, the patient showed symptoms of collapse, which was combated by hot bottles applied to the sides of the body, hypodermic injections of ether, and rectal injections of brandy. For the first thirty-six hours the cutaneous function was stimulated by abundance of bedclothing and a temperature of 70°. On examination the calculi were found to be composed of phosphate of lime. The after-progress of the case was uneventful, and the patient left the hospital with a sinus in the loin on Sept. 6th. The patient is now, and has been for some time past, in the enjoyment of good health.

Remarks.—The first case is chiefly remarkable for the rapidity with which the disease prostrated the patient, converting a seemingly robust woman in the short space of eleven weeks into a mere wreck. Doubtless fatty degeneration had preceded the suppurative change, but what the exciting factor of this transition was I am not prepared to say. Possibly, had I been content in the first instance with a nephrotomy, leaving the major operation until the patient had somewhat rallied, the issue might have been different. In most, if not in all, cases of renal extirpation, the success of the operation hinges upon the state of the other kidney. An attempt should at least be made to ascertain this, either by a quantitative estimate of the urea passed or by catheterisation of the ureters. My second case is interesting on account of most of the symptoms which are looked upon as pathognomonic of stone in the kidney not being present. There was no history of hæmaturia, colic, or the usual reflected pains. Possibly this might have been in some measure accounted for by the fact that the calculi were not loose, but embedded in the renal tissue; still, clinically, their absence is worth noting. In this case, on account of the size and solidity of the tumour, the abdominal operation would have been the more easy, quicker, and less productive of shock to the patient. Parenthetically, I may state that the patient alluded to at the beginning of this paper is in the enjoyment of perfect health.

ON TRAUMATIC AORTIC REGURGITATION.

WITH REMARKS UPON THE EFFECTS OF AORTIC REGURGITATION IN GENERAL.

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AORTIC REGURGITATION under any circumstances presents many interesting features, clinical and pathological; but never more than when it occurs suddenly as the effect of injury or overstrain. Not a few of the cases of aortic incompetence met with in the hospitals are the effect of overstrain at work; in nearly all of them, however, we have no positive knowledge of the condition of the heart of the individual at the time of the injury. We consequently fail to appreciate thoroughly in these cases the relationship of strain and ruptured valve. The patient whose case forms the subject of my remarks was a very intelligent man, and

could point with precision to the very hour in which the accident happened. He was in good health, too, at the time, and on that account the report is the more valuable.

Edward W——, aged thirty-one, a soldier, was admitted into the Newcastle-on-Tyne Infirmary, under my care, on the 14th July, 1881, complaining of cough and shortness of breath. His face, hands, and feet were slightly swollen, and it was with the greatest difficulty he could occupy the recumbent position. The difficulty of breathing, which at times amounted to orthopnœa, was worst at night. He said he had always been a temperate man, and that he had enjoyed good health. Two or three times, however, he had been in the army hospital for venereal disease and ague. For the last fourteen years he has been a private in the 5th Fusiliers. It was in the month of May, 1881, that he was sent home as an invalid. All these years he resided in India. On the outbreak of the Afghan war he was sent from one of the hill stations, where he had been in excellent health, into the campaign. Immediately previous to this he was examined by the surgeon-major of his regiment, and found to be in perfect health. During the war he suffered greatly from exposure and want of food, but, with the exception to be mentioned, he was never incapacitated. He was at the capture of many of the forts, and had a good deal of climbing to go through, all of which was done with a few pounds of ammunition, &c., round his chest, supported by crossbelts, and with a Martini-Henry rifle in his hands, which he thought would weigh about ten or twelve pounds. On Jan. 15th, 1880, his regiment was engaged in battle with the Mohms, one of the hill tribes of Afghanistan. The enemy had the advantage of position. Along with his comrades he forded a stream nearly three feet deep, and under fire from the enemy began the ascent. The British soldiers kept firing upwards, and it was when doing so that W—— experienced all at once a sharp pain in his chest, a feeling as if something had given way, accompanied by a slight cracking noise. For a few minutes he had a peculiar sense of suffocation, but none specially of faintness. He was obliged to lie down for a short time. He then got up, finished that engagement, and took part in others. In the following May—that is, four months after this accident—he was obliged to go into hospital, where valvular disease of the heart was diagnosed; and in the month of May following (1881) he was invalided home. He never had rheumatism nor hæmoptysis, but had fever and ague on five occasions. At the time of his admission he was too ill to be examined; he had well marked Corrigan's pulse in both arms, and was pale and somewhat livid.

Under the administration of ammonia, ether, digitalis, brandy, nourishing soups, &c., the patient improved. By July 26th he could occupy the recumbent position in bed, was comparatively free from cough, and had little or no shortness of breath. On this date we were able to make out dulness over the base of the left lung. The apex was felt beating in the line of the left nipple, and a little more than two inches beneath it. Over the mitral area the first sound of the heart was extremely soft; a double murmur was heard over the right side of the base of the heart, also down the sternum; about mid-sternum the systolic murmur was rough, and the diastolic was whistling in character, extremely high in pitch, and was conducted downwards. The abdominal organs presented nothing unusual. The urine had a specific gravity of 1026, and was not albuminous. The left pupil was slightly contracted compared to the right.

Until Aug. 10th the patient remained very well. On this date it is noted that he complained of cough, of pain running down both arms, and of dyspnœa. A mixture containing sal volatile, nitrite of amyl, and tincture of opium relieved the pain and difficulty of breathing. He again improved, and remained well until October. On the 10th of this month, while exhibiting the patient to the class, he became very excited and breathless, the dyspnœa becoming very urgent. Excited and gasping for breath, he motioned for the class to go away, and it was nearly an hour before he recovered. For some days after this he remained in constant dread of anyone approaching his bed. His feet now began to swell, his face became puffy, but the urine never became albuminous. During the evening of Oct. 19th our junior house-surgeon, Mr. Jones, found him out of bed, sitting on a chair by the window in a stooping position, with his elbows resting on his knees and suffering greatly from dyspnœa. Later on he went to bed, where he was found dead about five in the morning.

Post-mortem examination.—Left lung adherent posteriorly and below, congested and œdematous, particularly lower lobe; right lung congested and œdematous. Heart very much enlarged, especially the left ventricle, the walls of which are thickened; cavity slightly dilated; mitral orifice dilated; right ventricle dilated; aortic orifice incompetent; aorta a little dilated at its commencement, and its coats slightly atheromatous. One of the aortic cusps had its free edge roughened, somewhat introverted, and a part of it was deficient. The valves, however, were otherwise perfectly healthy. The liver presented a nutmeg appearance. The kidneys had their cortical substance slightly increased. Spleen enlarged.

The interesting point in the case is that the aortic valves were healthy at the time they were exposed to undue strain. It is seldom that in cases of traumatic aortic regurgitation we have medical testimony bearing upon the condition of the valves just before the accident. It is true that in W——'s case the aorta at its origin was somewhat dilated, but the same force which dilated it in all probability and at the same time ruptured the valve. The heart, though doubtless sharing in the general weakening of all the tissues consequent on the exposure and privations of a campaign, was healthy until the day of the strain, for, beyond dilatation of the left ventricle, no organic lesion, save a few patches of atheroma of the aorta, was found after death in the heart or great vessels. Here, then, was a healthy heart exposed to strain; one of the aortic cusps is ruptured, this is followed immediately by a sense of pain in the chest and a feeling of suffocation, temporary recovery, and death twenty-one months afterwards.

Balthazar Foster, in speaking of the comparative longevity of aortic regurgitation depending upon endocarditis or traumatic rupture, says that "four years reckoned from the day of admission will include the day of death in by far the greater proportion, and that while we cannot estimate with certainty the value of life in any given case of aortic lesion, yet we may with tolerable accuracy fix the limits of vitality as lying within three months in cases of unfavourable rupture of the aortic valves." Two or three things regulate the longevity of the patient after such an accident. One is the severity of the lesion; another is the condition of the muscle of the heart and its lining membrane, and the state of the general health of the individual, to which might be added the nature of the employment during the period of temporary recovery. But all this simply raises the question, Why should aortic traumatism occurring in a healthy individual terminate in death much sooner than aortic regurgitation induced by disease in a heart already the seat of organic changes, so to speak? Aortic traumatism cannot, I think, boast of the same longevity as aortic incompetence induced by disease. No matter what form of cardiac disease one has to deal with, life in such is only possible by compensation making good the flaw. All cardiac lesions, in the main, act as obstructions to the circulation; they prevent the blood in full from passing into the arteries; they tend to keep it in the veins. Increased driving power behind the lesion is what is wanted. Compensation is a necessity. But compensation is made up of two things—increased amount of muscular tissue, and good nutrition of that tissue. If this is all, in which of the two cases, then, is it more likely to arise—in the regurgitation of aortic traumatism, where the heart and blood may be healthy, or in that of the diseased heart of rheumatism, where the blood is already impoverished? One would say *prima facie* in the former, and yet clinical experience does not support it. Nor can it be urged that the shorter life in aortic traumatism is due to the fact that the regurgitation is greater, for we have all seen cases of ordinary aortic incompetence in which the opening was greater than that in any case of traumatic rupture; and yet, in spite of this, life had been maintained for several years. It seems to me that the shorter life of the individual suffering from aortic traumatism has another explanation.

Given a case of aortic incompetence, the left ventricle in such is generally found after death in a state of hypertrophy with dilatation. The former of these two conditions is the one really compensatory; the latter is regarded as the simple result of the distending force of the column of blood in accordance with Pascal's law. Now, because in aortic regurgitation the left ventricle is filled during diastole from two sources—the forward current from the left auricle and the backward from the aorta—it is maintained by most cardiographers that the left ventricle in the first instance

dilates to accommodate the increased amount of blood passing into it, and after dilating somewhat it undergoes hypertrophy. First there is dilatation and then hypertrophy, the latter being the effort of nature to check the undue distension. Writers on cardiac disease are clear upon this point. Balfour, in his "Diseases of the Heart" (p. 74), says: "When aortic incompetence is established, and the ventricle fills from two sources instead of one, the first effect is of course to overfill the ventricle, and the earliest attempt at compensation is the accommodation of the left ventricle to the increased supply of blood it is required to contain. This is readily brought about by the elasticity of the muscular structure of which it is composed. The *first step towards compensation is therefore dilatation of the left ventricle.* Inasmuch, however, as *simple dilatation of the left ventricle* can only provide a receptacle for the blood delayed, and not a means of restoring it to the circulation, this first step would postpone the inevitable end only for a very short period, and *must itself be compensated* before the balance of the circulation can be so efficiently restored as to render the lesion mute. *To this end the dilated ventricle hypertrophies; pari passu* with the dilatation of its cavity, its walls become thicker and more powerful?" Niemeyer, in his "Practice of Medicine" (vol. i., 1878, p. 317), says: "Let us suppose that the aortic valves are insufficient and that blood regurgitates from the aorta into the left ventricle during its period of diastole; the pressure which the blood exerts upon the relaxed cardiac wall is then a very considerable one, and capable of overcoming the resisting power of the latter. ..... In *insufficience of the aortic valves there is always a considerable dilatation of the left ventricle which predominates over the co-existing hypertrophy.*" And at p. 318 he says: "Dilatation of the heart, when arising solely from an increase of the pressure of the blood within the cardiac cavities, as a rule, is soon followed by eccentric hypertrophy, the continuous and abnormally active contractions of the organ giving rise to a multiplication of its muscular fibres." Balthazar Foster, too, in his very admirable article on Heart Disease in Quain's Dictionary of Medicine (p. 624), when speaking of compensation, says: "Stated generally, it consists of hypertrophy of the cavity immediately behind the defect. It is effected differently, according to the form of disease. In aortic insufficiency there is some *dilatation of the ventricle as the primary result of the lesion. This is counterbalanced by greater hypertrophy.*" And in Dr. Bristowe's able article on Dilatation of the Heart (Quain's Dictionary, p. 588) a similar opinion is expressed: "In regurgitant disease at the aortic orifice.....*dilatation preponderates from first to last*.....There is no doubt hypertrophy waits upon dilatation.....The tendency to dilatation causes the tendency to hypertrophy." Bramwell, too, in Diseases of the Heart (p. 505), in speaking of the effects of aortic regurgitation on the heart, says: "The cavity of the left ventricle receives blood from two sources—viz., the aorta and left auricle; it is therefore more rapidly and more fully distended than in health. In consequence of the forcible distension of its flaccid walls, *dilatation* is produced; while its muscular wall is, by reason of the rapidity with which the cavity is filled, more rapidly stimulated than in health, and the frequency of the cardiac contractions is increased. The increased effort which is required to expel the extra quantity of blood which the cavity contains leads also to the production of hypertrophy." Sansom, in Diseases of the Heart (p. 145), says: "The secondary effects are—1st, there is a deficiency of supply of blood to the general arterial system; 2ndly, that the *left ventricle contains always too much blood.* The further consequences are that the ventricle undergoes compensatory hypertrophy, thus making up for the loss to the general arterial system induced by the reflux, and that from its overrepletion the ventricle becomes dilated."

(To be concluded.)

A FATAL ERROR.—Two male patients, one of whom was being treated for Bright's disease and the other for tuberculosis, have been poisoned in St. Louis Hospital, Paris. The pupil in the dispensing department sent poison up to the wards instead of the mixture which was ordered. The dispenser, on becoming acquainted with the deplorable result of his carelessness, attempted to commit suicide, and was only restrained from affecting his purpose by the exercise of considerable violence on the part of the other students.

NOTES OF

CASES IN OBSTETRIC JURISPRUDENCE.

BY J. BRAXTON HICKS, M.D., F.R.S., F.R.C.P. LOND.,
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HAVING had an intimate knowledge of the cases referred to in this communication, I have ventured to think that the points brought out, being novel, may prove of some interest to some of the readers of THE LANCET. I have endeavoured to make them as brief as possible; but for obvious reasons I have omitted the names of those concerned. Some of them have been through the law courts, some the subject only of legal opinion, and some have been on the verge of the precipice of publicity.

CASE 1. *Suit for Nullity of Marriage by the Husband on account of the following Condition of his Wife.*—She had had excellent health; but from her childhood had been unable to separate her thighs from one another, the knees being in such close contact that only the finger could be passed between. She could stand upright, and could bend the thighs on the abdomen to about half the natural extent. Under these circumstances, the husband asked the Court whether he might not be released from the marriage ties. The Court asked me whether childbirth were possible. I answered that childbirth was quite possible, though attended by some risk of laceration of the perineum, and some danger lest, if hæmorrhage occurred, it could not be so easily restrained as in ordinary states. The Court then inquired if her condition could be remedied. To this I rejoined that it might be so by an operation.[1] It would have been very interesting to have had the opinion of the Court on this, as I believe, novel case, and on the issue sought. But on full examination of the evidence it was shown that the husband had not entitled himself to a decree of nullity, inasmuch as he had absented himself from her bed from the marriage day, so that no attempt at consummation was made at all, and he was proved to have been in a state of chronic intoxication from that time.

CASE 2. *Suit by a Wife for Judicial Separation on account of the Unhealthy Condition of the Organs of Generation before and after Marriage.*—Before marriage the husband had been suffering from perineal abscess, the sequel of gonorrhœa contracted some few years previously, for which abscess he had undergone one or two surgical operations—namely, perineal section into the urethra. Marriage took place before the parts were restored to health, but it was previously agreed that separate beds should be occupied for two months or so in order to permit of recovery. The contention of the wife was that although he had been operated upon and was not as yet recovered at the time of marriage, yet she had no idea he was suffering from any disorder of the genitals, but had thought it was something of the nature of piles. Communications had been made to her by medical men, but she asserted that this was thus understood by her. However, after some time permission was given to commence intercourse; but as the husband was again laid up it had to be discontinued, and further operations became necessary. Intercourse was occasionally resumed, but ultimately the wife's health was affected, and it was found she was suffering from irritation of the vagina and vulva, with uterine leucorrhœa. Local applications were made to the vagina and cervix uteri, but without much benefit. I was called in after an attack of very severe pain on one side of the pelvis, where I found a cellulitic effusion; after a few weeks this subsided, but still the uterine catarrh remained, with much irritation of the vagina. As the canal had been well medicated without benefit, the os was dilated. It was evident that the uterine cavity was larger than normal. I passed a silver tube, through which the interior of the uterus was painted over by a brush charged with iodised phenol. This cured the complaint. However, upon overtures being made by the husband for renewal of cohabitation, she begged him to refrain in future, he being still uncured, and to occupy a separate bed. He said if this was to be the case he would leave her; but she rejoined that if so she must make clear the reason. Hence this action for separation. And the question asked

[1] Mr. Bryant tells me he has recently had a case of similar condition of one leg, which he entirely cured by the division of the adductor tendons near the pelvic bones.

the Court was whether under these circumstances it was obligatory on a wife to permit cohabitation; and, if not, then an order in her favour was requested. Evidence having been taken on the above-mentioned facts, the question put by the Court to many witnesses was whether the endometritis and other symptoms from which the wife suffered were likely to result from coitus where purulent secretion found its way into the urethra. I stated, as did others, that although there were many causes which produce like symptoms, it was a result quite to be expected under the circumstances. The result of the evidence on his part was to confirm the cause and circumstances of his illness and severe operations, as above described, and the jury (special), after a brief consultation found that the husband had been "guilty of cruelty," which was the legal form of the plaint, and the Court decreed a judicial separation. An appeal was granted. The husband argued the case in person, but the upper Court confirmed the decree of the Court below. I am not aware that a similar case had been in the Divorce Court before, and in any way the decision in its principle is important. It would be difficult to say when the specific contagium of gonorrhœa ceased to infect specifically. In this case a purulent secretion would find its way from the fistula along with the semen, and this would be most likely to produce irritation of the membrane lining the genital track, with not impossibly salpingitis, cellulitis, &c. The knowledge of the husband's condition would naturally raise a feeling of disgust in a delicate woman, apart from fear of its results upon her. Supposing it had not arisen from gonorrhœa, what would have been the decision? Supposing there were no abscess, but a continuance of the specific disease contracted before marriage in the form of gleet, or occasional purulent discharges, could the husband insist on continuing intercourse, or could the wife claim the protection of the Court? Cannot everyone call to mind at least one such case?

CASE 3. *Suit for Nullity of Marriage by the Husband on account of the Frigidity of his Wife.*—In this case the wife, from the marriage night inclusive, refused cohabitation. She made no objection to the presence of the husband in the house or bed, nor did she evince any decided repugnance to him, though she only permitted him to kiss her once. In consequence of his persistence in his requests to her to fulfil her duties as a wife, she about the end of eighteen months left her home, and after some search she was found at the house of a female friend. After some persuasion she was induced to return, but still refused as before. After about two years of this treatment, the husband sought the release of the marriage ties. She offered no objection, but only appeared by counsel. After hearing the evidence of the husband to the above effect, and my account of the interviews I had had with the wife confirming his statements, the Court granted the decree of nullity on the ground that she had never fulfilled the duties for which the marriage contract was instituted; that she was, in fact, only as a child to him; and that there appeared no probability of the case being different in view of the time already passed without any improvement. A question was raised as to whether she was, in the words of the lawyers, *frigida ad hunc*, or to the sex generally. When she went away from home I heard that she was not altogether without sympathy with the other sex, although nothing improper was suggested. But this question did not influence the decision of the Court. The sexual instinct and attraction is inexplicable in many instances, but its absence more or less is not infrequent in women, many of whom, nevertheless, are extremely pleased with the social attentions of the other sex, principally from the love of admiration, and many of these possess feminine attractions and beauty in a high degree. Again, not infrequent instances occur where utter repugnance exists at the intervals between menstruation, and active attraction about the periods; and, as is often seen, a woman is attracted by one only, often the most unlikely, even to infatuation.

CASE 4. *Suit of Wife for Decree of Nullity against Husband for Incompetence.*—This was not an unusual case. The couple had been married two years without the husband having attempted consummation at any one time. Both parties were examined under commission, but there was no opposition on the part of the husband to the suit. There was no abnormality on the part of the husband nor on that of the wife; and while there was no evidence that connexion had been established, yet there was no obstacle to such a consummation. Consequently the court was satisfied of the husband's incompetence. The Court in such cases is careful that there be no collusion between the parties, and therefore it is necessary to examine both. In this case there was no sign of continued intercourse, yet it would be difficult to say that none had occurred, because of the elasticity of the parts in some cases.

CASE 5. *Mental Aberration; Post-nubial Insanity from the Wedding-night from Sexual Difficulties on both sides; alleged Incompetence of the Husband, and suggestions of the Divorce Court; satisfactory recovery of both.*—On the wedding-night difficulties occurred regarding consummation, and the wife from that time became not hysterical, but demented, and had to be guarded. After some weeks the excitement subsided, and then she became bewildered and "dazed." I saw her some weeks after, and found her in an apathetic state, answering in an indefinite way, or slowly or not at all. The circulation was feeble and low, the extremities blue and cold, and the menses had been reduced to merely a day's duration; the bowels were torpid, appetite small, and the tongue furred. I examined her per vaginam, and found the hymen sufficiently dilatable; the uterus was retroflexed; otherwise nothing abnormal. It appeared that the husband's capacity was doubted—a condition which was confirmed on inquiry. His age was forty, and he was a so-called confirmed bachelor, of reading and quiet habits. On the first night of marriage there was some difficulty from non-knowledge, and he was nearly as much frightened as his wife, and this influence still remained. I advised them to remain quiet, and, indeed, to separate for a time. This was carried out, she remaining under her mother's roof, where she was kindly looked after. I treated her with tonics, iron and quinine, and good food. She gradually improved, but complained of dysmenorrhœa, which had troubled her for years. I thought it worth while to employ a Hodge's pessary. This plan was attended by marked benefit, and she wore it for some three months. I recommended her to return to her husband, on whom I enjoined obvious prudential considerations. The result of this plan was evident, for at the end of a year she gave birth to a child, and she now has many children. I should add that serious discussions arose on her friends' part as to an application to the Divorce Court, with a view of obtaining a decree of nullity. This, however, as just shown, was unnecessary.

This case is interesting as bearing on some of the points raised in the recent case (Durham *v.* Durham), where one of the medical witnesses stated, in answer to a question as to whether insanity was likely to come on after marriage in consequence of the nervous shock, that he did not know of any such case. Yet mental disturbance, both before and after marriage, and clearly in consequence of the excitement through fear or desire of marital congress, is a state well known. Doubtless the whole affair is one of the powerful influences which act on the mind, like that of money, religion, &c., and, like them, liable to excite even to derangement. In this case it would not have been difficult to have rendered the wife's mental derangement much more severe had her husband treated her unkindly or roughly.

(To be continued.)

CASE OF PARALYSIS OF SENSATION.[1]

BY JOHN URQUHART, M.D. EDIN.,
PHYSICIAN TO THE HOSPITAL FOR INCURABLE DISEASES, ABERDEEN.

A. B——, aged thirty-nine, a clergyman, rather thin, sallow, and of nervous temperament, was seen by me first on Dec. 20th, 1883, when he complained of loss of sensation, extending from the toes to half over the hips and above the ilium. He could not tell from any local sensation when his bowels were being moved; neither could he tell when he passed urine, except by looking. He had, however, sensations of need when the bowels or bladder were to be evacuated. He felt nothing on his limbs being touched, or on heat or cold being applied to them. On pricking the soles of the feet he felt pain and withdrew them quickly, and also on tickling the soles. He was insensible to tickling on the inside of the thighs and most other parts of the lower limbs. He felt the heat when a hot spoon was applied to

[1] Paper read before the Aberdeen Medico-Chirurgical Society April 2nd, 1885.

the soles of his feet, and withdrew them quickly, but said the sensation was more dead-like than when the hands were touched. He was worse in bed, as when under the bedclothes the lower half of his body seemed not to belong to him, and he did not know where it was; whereas, when on a couch or sitting up, seeing the legs made him feel better. He could walk perfectly, and equally well whether his eyes were open or shut. There was no velvet-like feeling in the soles of the feet; reflex at the patella and at the ankle was natural. Specific gravity of the urine 1018; no sugar or albumen. Pulse 60; tongue clean; temperature normal; bowels regular; appetite good.

The patient stated that his symptoms began a few days before he was seen, the numbness beginning with the feet and spreading to halfway up to the knee, and quickly extending to the position they were in when seen, in which they had remained for some days without change. He had never had any fear or difficulty in walking since he was affected; indeed he liked to walk, as it seemed to produce some pricking as if sensation were returning; and he thought if he could but walk far enough sensation would come back. When next seen, five days afterwards, he felt the fingers when pressed against the skin like something touching the skin all over—he could not tell what touched him; and at the lower part of the thigh behind there was a space where sensation had returned perfectly. As to the parts where sensation was imperfect, the feeling as described was as if the skin alone were sensible and the parts below had no sensibility. He felt best when walking.

On January 7th he felt rather better. When he got out of bed the touch of his feet on the floor was more natural, as if sensation was returning; the deadness was less, and the feet seemed connected with the body. The big toes, which had been the worst, were improved with the others, and a tight sensation which had existed from the first on the upper part of the feet was less.

A few days after this the patient complained of pain in his big toes during the night, and they felt stiff, as from want of oil. He complained also of pain in his heels, as if from the bones, and that he had a sensation of his feet being in tight boots, and felt relieved by larger slippers and larger and thicker stockings.

Jan. 12th.—Felt two points of the æsthesiometer more distinctly when pressed against the legs, but no difference as to insensibility to position of limbs when in bed and covered. Had still pain in the left great toe, as if from rheumatism; otherwise improved, sleep, appetite, &c., being better.

14th.—Was more conscious of where his legs were when under the bedclothes last night. The feet were not so tight, but there was still considerable tightness round the waist. Great toes more like the others, and the pain in them gone. The natural sensations accompanying urination, &c., seemed slightly returning. His legs seemed to himself more natural when he touched them.

16th.—Felt again as uncomfortable as ever when under the bedclothes, but sensation seemed still improved when the bladder and bowels were emptied. Points six inches apart still recognised as one only, but could distinguish a point from a blunt object, and when pinched or pricked felt pain acutely. Hot water felt hot to the feet. Considered himself better on the whole, as a sensation he had had from the beginning, but which he had never mentioned, was getting less. This sensation was as if the hairs on his legs were like bristles, or, as he expressed it, "porcupine's quills," when he rubbed one leg against another.

25th.—At three inches he seldom detected two points of the æsthesiometer when applied below the knee, even when forty seconds were allowed before a second point was applied; nearer than three inches almost always wrong, even though manifestly guessing. Expressed himself as having a more natural feeling about the hips, which before had seemed to be made of indiarubber. Micturition &c. felt natural to him. Felt tightness round the waist still, and "gasping" in walking fast, but otherwise could walk well, and felt his strength to be improved. Heart, lungs, liver, &c., normal.

He went for change to a hydropathic establishment, and returned to Aberdeen two months after residing in various parts of Scotland and England. He expressed himself as well and strong, but thought there was still slight numbness below the knee. He returned to duty after three months' leave, and was seen from time to time, the last occasion being on December 30th, 1884, when he was in perfect health, although he had once broken down through overworking himself.

The treatment consisted of iodide and bromide of potassium, followed by Easton's syrup, counter-irritation, hot salt-water douche, rest, and good diet. He was allowed to have a glass of beer and two glasses of sherry daily after a time, and seemed to derive benefit therefrom. Galvanism and dry-cupping were used also, and at the hydropathic establishment he had baths and rubbing under the superintendence of a medical man.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

A CASE OF GLANDERS; DEATH; NECROPSY.

(Under the care of Sir W. MAC CORMAC.)

GLANDERS is luckily a very rare disease amongst men, and when a complete record of a case can be obtained it is of great interest. The following case is especially so because of the discovery during life of the bacillus of the disease; it was only found after careful search and the examination of several slides of the secretion from one of the pustules, and was not found in the blood. There appeared to be no point of inoculation; the condition of the tonsils would suggest inoculation there, but they seem to be peculiarly liable to suppuration in this disease. There was no nasal discharge, and no apparent disease of the lymphatic glands. When the patient was admitted the case much resembled one of pyæmia secondary to disease of the right femur; and it was only on the appearance of the eruption and the somewhat profuse expectoration that further inquiry elicited the history of glanders in the man's stable, which important fact had been carefully concealed by the patient and his friends when giving an account of the illness.

For the report of the case we are indebted to Mr. J. D. Ballance.

J. C——, aged thirty-eight, a cabman, was admitted into Leopold ward on July 17th, 1885, complaining of swelling and severe pain in the right hip. He was a well-nourished man. Examination of the right thigh showed some swelling on the outer side, chiefly over the great trochanter. There was also swelling over the front of the thigh below Poupart's ligament. There was some mottled redness over the great trochanter, the result of applications which had been made to the part. The swelling appeared to extend down the upper two-thirds of the thigh. The pain was severe, especially on movement of the hip-joint, the patient being unable to move it himself. There was also pain in the knee and ankle. The position of the limb was normal, excepting for slight inversion of the foot. He complained of tenderness on pressure all over the thigh, especially over the inner side and behind the knee. The abdomen was distended and tympanitic, and the superficial veins appeared enlarged. The first sound at the cardiac apex was of a booming character, but there was no evidence of disease. The lungs were resonant. Urine: specific gravity, 1022; acid, thick and cloudy; some albumen. There were several spots about the trunk, resembling in some parts pimples and in others sudamina; some of these were on the face, which was flushed. The temperature was 105·8°, and he had a rigor soon after he came into the ward. He stated that the illness commenced three weeks ago with severe shooting pain in the right hip, passing down to the knee. He had been unable to move the leg without pain, and had been confined to bed. The pain afterwards settled in the hip. There had been no injury to the hip. The family history was good. He had suffered from "stoppage of the bowels" fourteen years ago. Had gastric fever nine years ago. Had had rheumatism four or five times. Suffered from "winter cough." Had not had any venereal disease.

Leeches were applied to the hip, and a bracket long outside splint put on. Further investigation elicited the fact that twelve months ago he had lost a horse from "influenza and running from the nose." After the horse was killed, the man himself had severe colds in the head, accompanied by an offensive discharge from the nose, and expectoration of a large quantity of very offensive phlegm. He had also lost two horses this year from "glanders." The last died two months ago, after which the stable was turned out by the sanitary authorities. He had had no sore of any kind about the hand or face.

July 20th.—About 9 o'clock yesterday morning he became delirious and very restless, continuing so all day. This morning the pulse is 132, and there is a marked eruption of pustules scattered over the chest, arms, face, and neck, most marked on the back of the shoulders. The spots begin as pimples, which develop into pustules, the base of which is inflamed and elevated. As they increase in size the inflammation around the base extends, and they have a tendency to irregular outlines, and in some parts coalesce; they are not umbilicated. There is no discharge from the nose. Last night he was noticed to hawk and spit about the floor, as if trying to get rid of a viscid mucus which in small quantity was clinging to his tongue and gums. This symptom continued at intervals until the day before death.

21st.—Has had a fairly good night and slept for three hours, but was delirious. Says that he is better, but looks anxious, and there is some nervous twitching about the lips when he speaks, and slight subsultus tendinum of the forearms. Pulse 164; respiration 52. Tongue covered with a white fur and rather dry. He complains of some pain across the abdomen over the region of the stomach, where there is tenderness; there is much tympanitic distension. Bowels acted once; very offensive motion. The swelling of the thigh is less. The pustules have increased over the face, neck, hands, and arms; there are some on the fingers. The smaller spots are shotty in character. There is a little running from the eyes, but none from the nose. He is taking five grains of quinine in milk every four hours, and is to have six ounces of brandy, eggs, milk, and ice.

22nd.—The patient died at 4 A.M. During the last hour or two he was unable to expectorate, and this caused considerable increase of the dyspnœa from which he had been suffering. The eruption covered the whole body. There was some diarrhœa during the night, with offensive motions. The temperature continued high throughout, not falling below 100·8° (8 A.M., 19th); it was usually lowest at noon, being generally about 102·4° at that time, but would rise to 105° two hours later, and always exceeded 104° some time during the day, but with no regularity; a short time before death it rose to 105·2°. He had profuse sweating on the 19th, but there was no repetition of the rigor.

On the 21st Mr. Hull, the house-surgeon, examined some secretion from one of the pustules; this was stained with methyl violet and washed with dilute acetic acid. Under a strong microscope, one of the slides examined showed the presence of bacilli of well-marked character resembling those found in tuberculosis.

The post-mortem examination was made by Dr. Sharkey ten hours after death. The body presented the appearance of a well-made and somewhat thin man. The skin in general—body, face, arms, and to a less extent the legs—was covered with a vesicular eruption. On the neck and face several of the vesicles had burst and left scabs of a dark-brown colour, thin, and with a depressed centre. The vesicles varied from a pin's head in size to six times that size. A very frequent appearance was that of a purplish area of skin, not thickened, supporting a large vesicle (such as is seen in herpes), which had in its immediate neighbourhood several smaller vesicles. The contents of all the vesicles were opaque, and white in colour. None could be seen in the nostrils or mouth. The left tonsil had been the seat of former ulceration, which had left a largish, clean-cut, superficial depression. The right was ulcerated, and presented a slightly granular surface, covered with pus. On the soft palate, close by the uvula, was a small ulcer. The larynx and trachea presented no ulcers, &c., except a very minute one, which was situated on the anterior wall of the trachea, below the larynx. The bronchi were inflamed, and sometimes a small caseous nodule presented itself in their mucous membrane. The right lung was adherent by old adhesions to the chest wall. Both lungs were studded thickly with caseous-looking nodules, varying in size from the smallest visible points to about the size of a large hazel-nut. They were irregular in shape, with sharply defined outline, and the lung tissue around was deeply congested, but not solid. The nodules themselves were solid and greenish-white. When they were situated deeply beneath the pleura, the latter was very deeply injected, and the nodules appeared white, with a deep-red border. The right hip-joint contained synovial fluid, a little opaque. The spleen was large and soft. The liver was large, pale, and a little harder than natural. The rest of the organs, including the intestines, were healthy.

YORK COUNTY HOSPITAL.

MALIGNANT DISEASE OF THE MOUTH; EXCISION OF THE FLOOR OF THE MOUTH AND PART OF THE LOWER JAW; RECOVERY.

(Under the care of Mr. JALLAND.)

WILLIAM N——, aged fifty-eight, a blacksmith, admitted March 16th, discharged May 2nd, 1885. A brother of the patient died at the age of fifty-five from recurrence of glands in neck after removal of cancerous tongue. Had had no illness till the present. Has lived freely. Accustomed to smoke not less than a quarter of a pound of tobacco a week out of clay pipes. Fifteen months ago noticed the inner surface of left cheek was sore constantly; attributed it to excessive smoking. The sore never healed. Twelve months ago the above-mentioned sore began to spread backwards towards the lower molars, thence into the floor of the mouth, till one month before admission the ulceration had extended to the frænum linguæ, and the present tumour began to develop.

On admission he appeared a healthy, well-nourished man; no signs of cachexia. On the inner surface of the body of the jaw was seen a somewhat rounded tumour (the size of a pigeon's egg divided longitudinally), dense and elastic in consistence; a portion of its surface was ulcerated, and more deeply so posteriorly in the situation of the second bicuspid and molars (which got loose and were extracted by the patient himself, about six months ago). In the socket of the left central incisor (which he pulled out two weeks ago) was a mass of granulations. The outer surface of the bone seemed fairly smooth. The remaining teeth (second incisor, canine, and first bicuspid) on the left side all moved on pressure and apparently carried a portion of the alveolus with them. On the right side the growth extended to the level of the second bicuspid, and posteriorly and on the left side nearly to the angle of the jaw. Slight and occasional pain. Salivation somewhat interfered with articulation.

The tumour, being supposed to be epitheliomatous, Mr. Jalland on March 17th proceeded to remove it. The patient was first placed under the influence of chloroform, but took it badly, his pulse failing, so the A.E.C. mixture was substituted. Being anæsthetised, an incision was made through the lip to the right of the median line about the level of the canine, the lip being completely divided from above downwards, an incision carried backwards along the lower border of the bone on the left side to about the level of the third molar, and on the right for about an inch and a half to the right of the lip incision. All bleeding vessels were secured as they were divided. The jaw was now sawn through on each side of the growth, and, being grasped by the fingers, the knife was carried from behind forwards through the soft parts beneath the tongue, thus detaching the mass. At this stage, before the wound was sewn up, a stout piece of silk was passed through the tongue, the ends being held by the anæsthetist. Scarcely had this been done when the patient ceased breathing, rapidly becoming cyanosed, his pulse remaining full and good. The tongue being forcibly drawn forwards, breathing recommenced. The lip wound was brought together by three hare-lip pins, and the wounds on each side sutured. While this was being done stoppage in respiration again occurred, the patient not being fully under the influence of the anæsthetic at this stage, and he had a partial respiratory convulsion. Pulling the tongue forwards by means of the silk cord not availing, a finger was passed down to the root of it and the hyoid pressed forcibly forwards, respiration at once returning. A drainage-tube was placed in the wound, and a dressing of salicylic wool over all. The patient was placed in bed and kept in a sitting posture, with the tongue ligature strapped to the cheek ready for an emergency. There was

a certain amount of shock and very slight bleeding. Could swallow Brand's essence and milk easily, provided they were placed well on the back of the tongue. He had no pain, and slept in short dozes.

March 18th.—Going on well. Diet beef-tea and milk. Temperature A.M., 99·6°; P.M., 100°.

19th.—Slept well. Tongue ligature and two lowest pins taken out. Temperature A.M., 99·2°; P.M., 100°.

20th.—Wound almost healed. Third and last pin taken out. Temperature A.M., 99°; P.M., 102°.

21st.—Drainage-tube taken out. Temperature A.M., 99°; P.M., 101°.

23rd.—Going on well. Temperature normal. Much leaking from drainage-tube holes.

30th.—Has progressed quite satisfactorily. Temperature has remained normal. Got up. Still a good deal of salivary leaking.

April 7th.—Drainage-tube holes quite healed and leaking stopped. The growth has, however, reappeared, especially on the left side. At both sides it projects mushroom-like from the divided ends of the bone. On the left side the periosteum has peeled off the inner surface of the bone, which is quite bare. The patient's health is good; he can eat mince and bread-and-milk; he cannot protrude his tongue, but can talk quite intelligibly. There are no enlarged glands.

It was decided to operate again. Accordingly, on the 14th, the patient being anæsthetised by means of the A. E. C. mixture, the old wound was completely reopened and the lower incision carried backwards to the angle of the jaw on both sides. The ramus of the jaw on the left side was divided just below the sigmoid notch with bone forceps, and on the right side the body was sawn through behind the third molar. There was a good deal of bleeding, but it was easily arrested. Scarcely any blood escaped into the mouth by reason of the barrier—as in the previous operation—of sponges on sticks. The wound was brought together as before, during which portion of the operation the patient twice became nearly asphyxiated. Pulling the tongue forwards by means of a silk ligature not being sufficient, the finger was hooked well over its root, and on dragging this up respiration returned. No drainage-tube was left in the wound this time on account of the prolonged leaking, which continued from the tube tract on the former occasion. The patient, being put to bed in a sitting posture as before, began to develop shock in a rather severe degree, his pulse becoming very feeble; accordingly he was put on beef-tea and brandy enemata every four hours.

15th.—Slept fairly well; no pain; has drunk a pint of milk (put on the back of his tongue with a spoon); pulse 92, good; enemata stopped. Temperature A.M., 99·8°; P.M., 100°. In the evening two hare-lip pins were removed.

16th.—Not quite so good a night; no pain, but has a troublesome short cough; no morbid breath sounds; red blush on his left cheek, quite away from the line of incision, which looks quite healthy; several sutures removed; all those on left side except one. Temperature A.M., 100·2°; P.M., 101·1°.

17th.—Feels better; blush in the same situation; rather brawny; wound looks well and is healing fast, especially the portions incised for the first time; remaining two pins taken out; notwithstanding the fact that the second incision was through the cicatricial tissue, it is now fairly firmly united. Temperature A.M., 101·2°; P.M., 100°.

18th.—Much better; blush nearly gone; temperature normal, never rose after this; wound nearly healed, except just under the chin, whence a quantity of salivary leaking goes on, running down his chest and saturating his clothes as on the former occasion.

21st.—Got up.

22nd.—Periosteum on inner side of remains of right ramus is fungous and raised off the surface of the bone, which is bare.

30th.—The salivary leaking, which day by day has been getting less, has now ceased. Wound quite healed. The periosteum has now become glued on to the bone, and the fungous granulations have disappeared; there is a raw surface on the inside of the cheek, just opposite the second molar in the right upper jaw, but with no induration perceptible about it. He can feed himself and swallow everything soft, putting it on the back of his tongue; cannot protrude his tongue in the least, but has considerable lateral movement. The lower lip is much puckered and has a tendency to drop away from the upper, dribbling of the saliva over the lip then occurring; it can, however, easily be kept up by means of a piece of strapping. No glandular enlargement.

July 18th.—Was seen to-day. Is perfectly well in health; no appearance of any return of the growth; solid cicatrix in position of the removed jaw.

Analytical Records.

CARNRICK'S BEEF PEPTONOIDS.

(MALTINE MANUFACTURING CO., HART-STREET, LONDON.)

THE dry powder known as beef peptonoids is a partially peptonised and highly nutritious mixture—said to be made from beef, milk, and wheat gluten. It is a most concentrated form of nitrogenous food, easy of digestion, and well adapted and convenient for medical use. This is high praise, but it is well deserved.

REAL TURTLE SOUP; PURE ESSENCE OF BEEF; CONCENTRATED BEEF-TEA.

(LONDON MANUFACTURING CO., HATTON-GARDEN.)

No one could doubt of the reality of the turtle-soup, for the bottle is half full of the unmistakable green fat. The essence of beef is a clear jelly of delicate flavour, and of course great nutritive power. It is a preparation of much value in cases of exhaustion, and should be used cold, or, if there is any tendency to vomiting, with ice. The concentrated beef-tea is sold in skins, and appears to be satisfactory in quality.

SEMOLINA.

(JAMES MARSHALL, IBROX FLOUR MILLS, GLASGOW.)

Semolina may be shortly described as crushed, decorticated, and sifted wheat. All the husk and a portion of the starch are removed when the manufacture is skilful, so that the residue is somewhat richer in flesh-formers than ordinary wheat flour. The sample of semolina received from Mr. Marshall (the maker) is entirely satisfactory. It consists of brilliant pearl-like grains, very uniform in size, almost white singly, but pale-yellow in bulk. It is very well made, and analysis shows that it is absolutely free from adulteration. We regard it as a highly valuable form of food.

New Inventions.

THE COVENTRY CHAIR.

AT a time like the present, when "cycling" enjoys such great popularity, Messrs. Starley and Sutton of Coventry may be congratulated on a happy thought, which enables the invalid as well as the robust to derive advantage and pleasure therefrom. The "Coventry chair" is an adaptation of the tricycle to Bath chair purposes, and consists of a wicker easy chair (balanced on a tricycle frame) in front, in which the invalld sits, whilst the driver, mounted on a seat behind, works the pedals and controls the steering. This machine is of course capable of far greater variation of pace than the time-honoured Bath chair. It is, we should imagine, likely to become popular and useful in the country where the roads are good, and especially at seaside resorts. To families having an invalid amongst them it affords the chance of active, healthy exercise for those who are well, combined with fresh air for the invalid. Compared with the ordinary Bath chair, however, it seems to possess this disadvantage: the driver sitting behind the passenger and steering the machine, it is of course impossible to have any hood or other protection to the invalid from the sun or showers. The chair can be fitted, if required, with a handle, which can be readily attached or detached for pulling and guiding

from the front as an ordinary Bath chair. Would it not be possible to supply a removable hood as well? The "Coventry chair" is manufactured by Messrs. Starley and Sutton, Meteor Works, West Orchard, Coventry, and can be seen and tried at Mr. Alfred Carter's, 47, Holborn Viaduct, E.C.

THE NIAGARA WATER FILTER.

THIS is a very simple and ingenious filter, made by Mr. P. Parker, of Keighley. In a stoneware vase, slightly conical at the sides, two stoneware trays lie at different heights. They are perforated with fine holes, and are kept in their places by rings of cork over them. The lower one is covered with a disc of asbestos cloth, and on this is placed the filtering agent, which in the apparatus sent to us is granular animal charcoal. The water, slightly strained by the upper disc, passes through the charcoal, and is thereby filtered. The whole can be taken to pieces in a minute, and the charcoal renewed, or washed and dried. We do not think animal charcoal is the best agent to use, and commend to Mr. Parker's attention the recent researches of Dr. Percy Frankland, published in the *Chemical News*, July 17th, 1885. Dr. Frankland finds that, after spongy iron, coke is the best filtering agent. Animal charcoal is excellent at first, but after a month or so becomes worse than useless.

ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION,
HELD AT CARDIFF ON JULY 28, 29, 30, AND 31.

THE members of the Association began to assemble in the forenoon of Tuesday, 28th inst.; the Town Hall, with its council chamber, courts, and offices, forming an admirable central place for the meetings. The hall, just within the entrance, is turned into a reception-room, where the members on their arrival receive their cards of membership, whilst the large Assembly Hall is devoted to the general meetings.

The first general meeting took place on Tuesday afternoon, the proceedings commencing at 3.30 P.M. Dr. Cuming, the retiring President, gave up the chair to his successor, Dr. W. T. Edwards, of Cardiff. A cordial vote of thanks to Dr. Cuming was moved by Mr. Macnamara, and seconded by Mr. Wheelhouse.

Dr. BALTHAZAR FOSTER, President of the Council, then moved the adoption of the Council's report. The number of members of the Association is now 11,249, an increase of about 600 over the number at the last annual meeting. In that interval 123 have died and 162 have resigned. The success of the Association depends upon the activity of the branches and their representatives on the Council; and Dr. Foster fittingly alluded to the services rendered by these gentlemen in the conduct of affairs. He next touched upon the expediency and economy derived by the Association undertaking the printing of its Journal, and pointed out that the Journal had become a great financial success. As a result of an inquiry through the branches, it was proposed that homœopaths should not be admitted as members, but that no steps should be taken to expel members who practise homœopathy. The Council also proposed an alteration in the bye-laws to the effect that a requisition signed by 100 members, instead of fifty as at present, should be necessary to convene a special general meeting; and that all committees of the Association should be appointed by the Council and responsible to that body, instead of being elected at the general meetings.

Mr. H. POWER seconded the adoption of the report, and expressed satisfaction at the scientific grants and scholarships. He suggested an extension of the buildings, thus forming a central meeting-place for members.

Mr. G. BROWN inquired why the attendances of members of the Council had not been recorded as usual; and asked for further information as to the reasons why the Council arrived at the conclusion that it was more economical for the Association to publish the Journal itself.

Mr. BRINDLEY JAMES reminded the meeting that an extension of buildings so as to form a rendezvous for members had been advocated by Surgeon-Major Evatt and himself at previous meetings, but had hitherto been ignored by the Council.

Mr. DIX protested against a large outlay for the purpose of business premises—although he heartily agreed that the Association should have a house for social purposes. It was said that this expenditure was necessary to carry on the Journal, but the fallacy was that the present premises were very cheap. He moved an amendment to the effect that it was not desirable to spend a large sum of money upon a printing office.

Dr. BAMPTON seconded the amendment, and said that his branch had expressed a strong opinion against such an outlay. He advocated a site in the suburbs as being more economical, and sufficient for the purpose.

Mr. HUSBAND supported the proposal of the Council, and pointed out how remarkably the profits accruing from the Journal had increased since the Association took over the control of it, and moved to its present premises. It was not to the credit of the Association to be so inadequately supplied with offices, and to be without a central meeting-place.

Dr. GRIFFITHS supported the amendment, and Dr. GRIGG opposed it, stating he had been converted from the view he had formerly held by the success which had attended the removal of the office to the Strand.

Dr. WATERS said that the financial management of the Association had been unsurpassed, and it had become absolutely necessary that they should obtain the advantages accruing from this commercial success. He supported the action of the Council.

Dr. JACOB protested against the risks undertaken by the Association in printing the Journal; but supported the establishment of an Association house.

Mr. BROWN urged the Council to withdraw their proposition, and advised that larger premises for printing should be leased.

Mr. CORNWALL said that if such a large sum as that proposed were voted the Association would be left in debt, and thought the subject should be first discussed in the branches before taking so grave a step. It should be deferred to the next annual meeting.

Dr. B. FOSTER, in reply, said that they were not voting any sum of money, but were asked to trust their representative body to provide suitable accommodation for their business requirements. On a division, the amendment was rejected by a large majority, and the report of the Council was adopted.

The second general meeting was held the same evening, when there was a very large attendance. The President, Dr. EDWARDS, delivered his inaugural address, in which he described the geographical, commercial, and social features of Cardiff, and afterwards gave a sketch of the history of the Association, and its influence upon the progress of medicine and surgery and on the status of the profession.

On the motion of Dr. STRANGE, seconded by Dr. W. ROBERTS, a vote of thanks was awarded to Dr. Edwards for his address.

Dr. B. FOSTER then moved an addition to the bye-laws, empowering the branches to fill up casual vacancies on the Council as they may arise. This was seconded by Dr. Bridgwater, and carried *nem. con.*

Mr. DIX moved an addition to the bye-laws to the effect that the railway fares of the representatives of the branches who attend the meetings of the Council shall be paid from the funds of the Association. He had brought forward the resolution on two previous occasions, and had been defeated; but he contended that the question was a fundamental one of the system of representation.

Mr. JACKSON seconded the motion.

Dr. WARD COUSINS moved that the consideration of the question be deferred to "this day six months." He said that not a single branch had applied to the Council for payment of such expenses; and if once this principle was introduced, where were they to stop? The President of the Jamaica Branch was present at this meeting, and Surgeon-Major Cornish had come from India, and in time representatives might appear from all their distant colonial branches. Was it proposed to defray their expenses?

Dr. GRIGG said the opinion of the branches had been

taken on this question, and only one had thought it might be desirable.

Dr. PHILLIP, on behalf of the Jamaica Branch, said that his branch had no desire that the Association should defray the travelling expenses of any of its members, who were only too happy and honoured at belonging to the Association.

Dr. EYTON JONES opposed the motion.

The amendment was withdrawn, and a show of hands taken on the original motion, which was lost by a large majority.

Mr. G. BROWN then moved that representative members of distant branches might be elected from among those who did not reside within the limits of the branch. This was seconded by Mr. BRINDLEY JAMES, but warmly opposed by Mr. HUSBAND, as tending to give a preponderating influence to the metropolitan members.

Mr. WHEELHOUSE said this subject had constantly been discussed and dismissed. The resolution was negatived.

The general meeting on Wednesday, July 29th, opened with the enumeration by the Secretary of the newly-elected members of Council. This was followed by a report from the Council, presented by Dr. B. Foster, recommending the Association to accept the invitation of the medical profession and corporation at Brighton to hold the annual meeting of 1886 in that town. The Council also nominated Dr. Withers Moore as President-elect. The motion was seconded by Mr. Macnamara, the treasurer of the Association, and carried with applause. Dr. Withers Moore expressed his thanks for the honour done him, and promised the Association a hearty welcome to Brighton. Mr. Hayward of Brighton also endorsed the welcome.

ADDRESS IN THERAPEUTICS.

After the general meeting, the address in Therapeutics was delivered in the Assembly Room Town Hall by Dr. W. ROBERTS, F.R.S., Consulting Physician to the Manchester Royal Infirmary, Professor of Medicine in the Victoria University. Dr. Roberts, after some introductory remarks, observed: "Perhaps, of all the many duties which fall to the province of the medical practitioner, there is none so common as the duty of regulating the diet of his patients. Whatever the disease may be from which the patient is suffering, and whatever special means may be indicated for his relief, the regulation of the diet is sure, sooner or later, to crop up as an integral part of the management of the case. Dietetics, therefore, cover more ground than any other branch of the healing art—they are also, perhaps, the most ancient branch. Hippocrates traces back the very origin of medicine to dietetics. 'For,' he says, 'the art of medicine would not have been invented at first, nor would it have been made a subject of investigation, if, when men are indisposed, the same food and other articles of regimen which they eat and drink when in good health were proper for them, and if no others were preferable to these.' Notwithstanding this universal applicability and this high antiquity, it must be allowed that dietetics, except in a few special cases, are somewhat neglected in these days. The often contradictory advice which is tendered to invalids in regard to their diet by the several medical men whom they may consult betrays the want of a guiding principle, and of a general consensus of opinion in the medical profession on the subject of feeding the sick. This is, perhaps, not to be wondered at when it is considered how little systematic study is devoted to dietetics, and how fragmentary is the instruction on this subject which is given to the student of medicine..... The first pre-requisite for the acquisition of a sound knowledge of the dietetics of the sick is to have clear ideas on the origin and meaning of the dietetic customs of the healthy; for it is obvious that the proper diet for the sick must be some purposive modification of the diet of the healthy.....The science of dietetics must be mainly based and built up on an observation and a study of the practices and customs of mankind in regard to their eating and drinking, rather than on any *à priori* data supplied by physiology. In the case of the lower animals, we assume that each creature selects from the nutrient materials within its reach, those articles which are most suited to its well-being, and are best fitted to promote its success in the struggle for existence, and that it is guided in this selection by an almost unerring instinct. This, like other instincts, is now explained by biologists as consisting essentially in an inherited experience, which has been gradually accumulated through a long line of ancestors, and is transmitted by heredity to the descendants. Accordingly, when we see an animal feeding on a particular kind of food, we conclude without hesitation that that food is, of all the nutrient materials accessible to it, the best adapted for the special wants of its economy. But we know that man, in regard to his bodily functions, is subject to the same laws as govern the life of the lower animals; and we cannot doubt that in the formation of his dietetic habits man is guided by the same kind of instincts as those which guide the rest of the animal creation in the choice of their food. The generalised food-customs of mankind are therefore not to be viewed as random practices adopted to please the palate, or to gratify an idle or vicious appetite. These customs must be regarded as the outcome of profound instincts, which correspond to important wants of the human economy. They are the fruit of a colossal experience accumulated by countless millions of men in successive generations. They have the same weight and significance as other kindred facts of natural history, and are fitted to yield to observation and study lessons of the highest scientific and practical value. In taking dietetic customs as objects of study, it is obvious that widely disseminated customs, followed by many races and by vast masses of population, have a deeper and broader significance than customs limited to a few races or to small communities. It is also obvious that the practices of the more successful races, and of the easier classes of a nation, are more likely to yield good dietetics models than the practices of backward races or of the poorer classes; because the former, owing to their ampler means, have greater freedom of choice, and because also their greater success in the struggle for predominance is *primâ facie* evidence of the beneficial tendency of their food habits. The British races and the other races of Western Europe, together with their kindred and descendants in different parts of the globe, are, on the grounds just stated, fitted to supply us with a body of dietetic customs which may be regarded as a beneficial model. These races and nations are every way, but especially in intellectual power and in their productiveness of men of originality and eminence, far in advance of all others. Their food customs have grown up spontaneously, without material interference from legislator or religious reformer. Their world-wide commerce has brought cheaply to their doors the products of every land and every clime, and has enabled them to exercise a greater freedom of selection than has been possible to any other races. The salient characteristics of the diet of the western nations may be expressed in a few words. It consists partly of cereal and leguminous and other farinaceous articles, and of green vegetables and fruit, and partly of the various forms of animal flesh. The systematic use of alcoholic beverages is universal among them; and they consume in large quantities tea, coffee, or cocoa, or all three. It is important to remark that the main dietetic customs of a country grow up and are established for the benefit of the robust and healthy, of the sober and temperate, and those of mean or average constitution; in other words, for those who are bearing the burden of the day and fighting the battle of life. These form the great mass and bulk of the adult population, upon whose bodily and mental efficiency national progress and ascendancy depend. A good many individuals, and even entire families may not find these customs, in certain particulars, beneficial to their exceptional tendencies or weaknesses; they may even find in them a source of destruction to their health and life; but here, as elsewhere, and indeed universally in Nature's operations, the individual is sacrificed to the welfare of the community:

> So careful of the type she seems,
> So careless of the single life.

Alongside the main dietetic habits formed for the operative mass of the community, there are secondary habits formed for the use of infants and children, and for persons advanced in years. With regard to infants and children we observe that they are not allowed to partake of the accessory articles of food which form so conspicuous a part of the dietary of their elders. They are allowed neither the use of alcoholic beverages, nor of tea and coffee—except gradually as they draw towards adult age—but are fed on simple nutrients—milk, cooked cereals, and more or less meat. With advancing years, the diet undergoes a certain modification; the consumption of meat is, I think, somewhat lessened, and the consumption of soups, milk, and cooked cereals proportionally increased. With regard to alcohol, this modification of diet seems to vary with the preceding

practice of the individual. Persons who have been in the habit during their prime of taking a full allowance of stimulants, gradually diminish the proportion as age creeps on, and their nutritive processes decline in elasticity and power. Sometimes the indications of this natural tendency are neglected or resisted by the unwary; they imagine that the quantity of stimulants they tolerated with impunity during the vigour of manhood cannot hurt them in later life. This is a serious mistake, the commission of which tends to accelerate senile decay, and to provoke fatally tending organic changes in the large organs of the body and in the arterial system. On the other hand, persons who during their youth and prime have only used alcohol occasionally, or have abstained entirely from it, find advantage in their declining years in a more systematic use of alcoholic beverages. There is a clear difference also to be discerned in the dietetic habits of the two sexes. There are no available statistical data to go upon, but, from common observation, we cannot fail to note that men eat much more meat than women. Probably we should not err in estimating that two-thirds of the meat brought to market is eaten by men, and only one-third by women. In regard to alcohol, the contrast is still more marked. My impression is that, in this country, three-fourths, if not four-fifths, of the alcohol consumed is consumed by men, and only one-fourth or one-fifth by women. This difference is consonant with our experience as medical men that women are more sensitive to the effects of alcohol than men, and are more easily injured by the excessive use of it. On the other hand, the consumption of tea and coffee, but especially of tea, is markedly more abundant among women than men. The comparison is completed when we add that women consume, in proportion to the totality of their food, more milk and more bread than men do." After referring at some length to the food customs of Great Britain, and their effects on different constitutions, Dr. Roberts continued: "In a considerable number of conditions, our patients are unable to take solid food, and are reduced to the necessity of using food which can be administered in the liquid form. This is usually the case in the febrile state and in serious organic disease, especially of the abdominal organs, and in the terminal stages of almost all diseases. There are other conditions in which, although the patient may have the ability to take solid food, it is not desirable that such food should be administered to him. In narrowing of the pylorus or other part of the digestive tract, in ulceration of the intestinal mucous membrane, it is obviously undesirable to administer articles of food which are capable of forming lumps or masses which may block up the narrowed parts of the intestinal tube, or irritate the ulcerated surfaces. There is thus a large field for the employment of liquid food; and one of the most embarrassing tasks in clinical dietetics is to devise food in this form in sufficient change and variety, and having at the same time an adequate nutritive value. Our resources in this state of things consist of milk, beef-tea, and other meat decoctions, cold-made meat infusions, raw eggs, and the various gruels." He then spoke of the dietetic values of milk, beef-tea, and other meat decoctions, eggs, fortified gruels, and concluded as follows: "A matter of interest, in designing food for the sick-room and nursery, is the consideration of the special properties of the several kinds of cereal and leguminous substances used as food. In point of chemical composition, the several kinds of cereal grains are closely allied; still there are differences between them, and these differences may be of importance. The proteid of wheat is not quite identical with that of oats or barley. On the other hand, leguminous seeds differ importantly in composition from the cereal grains. Taking the lentil as a type of the leguminous group, it is to be observed that lentil flour contains twice as much proteid matter as wheat or oat flour, and almost twice as much lime. Moreover, the proteid of the leguminous seeds differs materially from that of wheat or oats. These differences are probably of not a little importance in feeding the sick and the young; and, if we had more knowledge and experience in their use, we could, perhaps, utilise with advantage these several cereal and leguminous products, and combine them in varied ways to meet the indications and necessities of different cases. All must have observed how there has grown up in these latter years an enormous trade in prepared 'foods' for infants and invalids. The very success of this trade is some evidence of the usefulness of these articles. Their composition is generally made more or less of a secret, but whatever secret there be must be hidden within a very narrow compass. The several possible flours out of which these 'foods' are mingled can be easily counted—wheat, barley, oat, maize, pea, lentil, and one or two others. These are the ingredients—with malt flour in some cases—out of which they are all compounded. I cannot help thinking that it would be an advantage both to ourselves and to our patients if we knew more precisely what we were about in this matter, and if we were in a position to prescribe for infants and invalids the several kinds of farinaceous aliments in proportions known to us, instead of blindly using some mixture of which we know not the exact composition. It is impossible for us to make progress in dietetics on such a path. I can quite believe that these flours have their special excellences, and that they are severally adapted for different cases and conditions. In the first place, they have distinctive flavours, and thereby may be made to contribute to the important end of providing change and variety for the invalid. Moreover, the faculty of 'agreeing' of the different flours, in reference to the individual idiosyncrasy, is a point of not a little significance. Lastly, the difference of chemical composition between the cereal and leguminous flours must have an important bearing on the dietetic uses of these two groups of aliments. It is a serious disadvantage that the control of the preparation of food for the sick-room and nursery should pass from the hands of the medical attendant to those of the purveyor. In the matter of drug-giving all enlightened practitioners are chary of prescribing secret remedies. Such a practice, it is felt, must be fatal to the intelligent use of drugs. So it is with providing food for the sick. What we want is to have at our disposal a supply of the several articles of food in their simple state, and suitable appliances in connexion with the sick-room or nursery for cooking and combining them in various ways according to the exigencies of our patients.....In bringing my remarks to a close, I should like again to press for a more systematic and a more comprehensive study of dietetics. The effects of diet are profound and far-reaching, and exceedingly subtle. Some inkling of this is got from the history of gout. You all know how slowly and how insidiously the gouty diathesis is developed under the influence of diet, and how it may affect the descendants unto the third and fourth generations. The immediate effects of diet are often not the most important. Behind these are remote sequences of vital concern to the family and the nation. And it is not solely in regard to feeding the sick that a scientific knowledge of dietetics is useful. There are public questions of great moment, affecting the food habits of the people, the consideration of which ought not to be dominated exclusively by popular opinion. In legislating on such questions it is of the last importance to proceed on correct lines; for it is certain that any policy which ignores the instincts of mankind and the laws of Nature is foredoomed to failure. I believe that a comprehensive study of these questions from the side of history, and of natural history, would throw unexpected light on the issues involved, and furnish data of great value for the guidance of the legislator and of the social reformer."

A vote of thanks was proposed by D. CHADWICK, seconded by Dr. CUMING, and carried with loud applause.

The various Sections commenced their proceedidgs at 2 P.M. on Wednesday afternoon. Section A. (Medicine)—President, S. Wilks, M.D., F.R.S., in the Crown Court. Section B. (Surgery)—President, E. H. Bennett, M.D., in the Nisi Prius Court. Section C. (Obstetric Medicine)—President, H. Gervis, M.D., in the Mayor's Court. Section D. (Public Medicine)—President, D. Davies, M.R.C.S., in the Assembly Room. Section E. (Psychology)—President, D. Yellowlees, M.D., in the Ante-Room. Section F. (Ophthalmology and Otology)—President, Henry Power, M.B., F.R.C.S., in the Grand Jury Room. Section G. (Pharmacology and Therapeutics)—President, Professor Fraser, M.D., in the Council Chamber.

SECTIONS.

MEDICINE.

In opening the Section of Medicine, Dr. WILKS, the President, took for the subject of his remarks "Some Causes of Disease, and on Reparative and Destructive Processes." He said: "If I look back to the addresses which I have given at this Association, at my hospital, or at the International Congress, I find the theme is the same. It is one which had its basis formed at a very early period of my career, and became more fixed as years and experience went on. It was this,

that the peculiarity of different races of mankind must depend on climate, food, and other surroundings, and that these peculiarities are transmitted; that hereditary tendencies have, therefore, much to do with the physical and mental characters of individuals, and also that these temperaments and idiosyncracies which are so evolved are most important in the production of our ailments; again, that these surroundings are in themselves sufficient to produce active disease—for example, a number of conditions tend to the prevalence of the gouty constitution in England, and this may be carried through several generations, but the same conditions, operating on an individual predisposed, may actually induce an attack in him; that the predisposing and exciting causes are the same. Morbus Brightii, and many other diseases, come about through the deleterious operation of our ordinary surroundings, both in the air we breathe and in the food we eat, and not from any well-defined specific cause. I have, therefore, considered that nearly all disease is slow in its origin and progress, and I have never been tired of quoting Hippocrates, the father of medicine, who said, 'Diseases do not fall upon men instantaneously, but, being collected by slow degrees, they explode with accumulated force.' I thought I saw, even in my student days, how erroneous the books and lectures were in giving descriptions of acute disease as occurring in healthy persons, and then how such affections became at last chronic. The truth, as I saw it, was very early forced upon me by making post-mortem examinations; when, for example, a person was brought to the hospital for obstruction of the bowels, attributed to an intussusception, or the lodgment of some indigestible food, and which proved nearly always to be due to a cause of very long standing, or even congenital; in the same way, acute peritonitis was but the termination of some old disease in the abdomen, and meningitis the ending of a prior disease in the brain. I had thus come to look upon disease as essentially chronic in its nature, induced by the ordinary agents surrounding us, and to believe that the medical art should be mainly directed against the operation of these causes. I have no doubt, had I given an address, and shut my eyes to all the discoveries going on around me, I should have wandered back to the old theme, and found all my opinions confirmed by age. I cannot, however, be blind to what is now occupying the medical mind, and, therefore, with all sadness, confess the truth—my occupation's gone. ..... Amongst many other subjects in medicine of a general nature to which my thoughts have been directed, there is one with which I will occupy you during the remainder of the short time allotted to me. It is a subject which has two sides to it—a physiological and a pathological one—both highly important with reference to clinical medicine. The one aspect has reference to the mutual relation which exists between the different functions of the body, suggestive of the organs having varying activities and compensating actions; the other aspect is the compensating or actual conservative process which we see going on during the progress of many diseases, a reparative as well as destructive action, and which can be recognised clinically during the life of the patient. Readers of the lectures of Sir James Paget will remember how he dilates upon a law (which had already been formulated by the older masters in medicine) that the proper adjustment of the various functions of the body is necessary for its integrity; and in this way every physiological process, however slight, may be looked upon in the light of a natural secretion. This seems like a truism, or mere platitude, and yet it is not seriously or practically considered. To preserve the integrity of the body of a given bulk, so much pure blood is required, and therefore suitable organs of a certain size for its production, also a definite amount of depurative organism for its purification. In this way life goes on. It is so evident that the organs must be proportioned to their use, that Aristotle maintained that Nature makes the organ for the function, and not the function for the organ. One of the most striking examples of this law is seen in the case of the kidneys. If one kidney be destroyed from any cause, the other will enlarge to compensate for the loss. It will grow until it has reached the point necessary for the discharge of its duties, and then cease to enlarge. The same probably occurs in other organs; where, for instance, a portion of the liver has been destroyed, the other lobe has proportionally enlarged; and, in some chronic affections of one lung, the other has evidently grown to maintain the balance. These processes are evidently conservative, and indicate a healthy organism. But it may be as well to ask, Does a deviation from this line ever occur from some unknown cause, and in this way is an abnormal or pathological condition set up? As regards the former—that is, an increased or diminished function—I do not know that this has ever been suggested in the more complex vital organs, and yet, of late years, a hypertrophy of the liver has been spoken of by pathologists. It is true that the term is given simply to express certain anatomical changes, and not necessarily implying that there has been an excess of the original secreting organ. As regards less important viscera and structures, it would seem that this limitation to healthy size is not kept; and in the case of the spleen the organ may grow to an immense bulk. Apparently the structure is healthy, and, putting together its supposed function and the state of the blood, it seems as if the balance was upset by the excessive development of one function, and the patient dies from having too much spleen. The same is thought to occur in the lymphatic glands, when they grow to an immense size by the addition of apparently healthy tissue. ..... It is curious that there is a widespread popular belief in the ever varying action of organs; as, for example, we daily hear of a liver being torpid, or secreting an excessive amount of bile. Bernard's theory of diabetes was that it was merely an excess of a normal function, that the liver was overactive in its glycogenic function. There is also a belief that the degrees of action of the liver are influenced by cold and heat. In some organs the action is clearly intermittent. In the case of the stomach, the organ when quiescent is small, containing little blood, and secreting no acid juice. As soon as it is stimulated by food it enlarges, blood is poured into its walls, and an intensely acid juice is exuded from its mucous surface. The generative organs are more marked examples of the intermittent action, especially in women; but in man, everyone must know instances where a testis may be discharging its secretion every few days, and then be in abeyance for months or years. The lacrymal may, under emotion, pour out as much fluid in a week as at other times it would do in a year. The brain during sleeping and waking constitutes, of course, a well-marked example of the intermittent action of organs. During violent exercise, it is evident that the organs are more fully at work; there is more tissue change, and more heat is produced; the skin is acting profusely, and the lungs more vigorously. As regards the brain we may go a step further: there is not only the general inactivity during sleep, but there probably is in all of us more or less inactivity during our waking hours. If a person be taken from a savage or uncivilised country, and his mental powers can be well defined, and he be placed in a school and be educated, so that after a time he shows himself possessed of a considerable amount of intellect, we are bound to conclude that if he had remained in his own country he would have been in possession of an unused brain or a non-functionising organ. Must, then, the popular belief receive the sanction of the profession that the liver may be torpid, the stomach inactive, the bowels sluggish, and the nerves unstrung? Apart from the question of their own individual waking or sleeping, as they are in action or not, it might be interesting to know whether the function of organs is influenced during ordinary sleep, or the sleep of the brain. Seeing that they are under the influence of the nervous system, this might be supposed; but since it is clear that the circulation is affected during sleep, it is almost certain that their action must be altered. Not only the brain sleeps, but other portions of the nervous system in part. It is said that the spinal system never sleeps, or the patient would die. Perhaps sometimes it does sleep, with the inevitable result. That it partially sleeps is seen in the paralysis of the whole muscular system when the head and limbs fall, and the mouth drops, counterfeiting death; snoring also being a counterpart of the apoplectic stertor. In heart disease the state of sleep evidently involves to a certain extent the spinal cord, for the interference with respiration and the gasping are among the most distressing symptoms of this complaint. But more observations are required to ascertain the state of the vascular system during sleep. At present we must be content with the facts which are presented to us. These do not accord with our preconceived ideas, which are so strongly impressed upon us that we act upon them rather than upon experience. The idea of sleep suggests quiet and repose—therefore the blood is circulating placidly through the body, and there would not be the same pressure on the vascular walls

as during violent exercise. But is this warranted by facts? For example, are varicose veins found in those who are sedentary, or in those who take much exercise? A more important case is that of hæmoptysis in pulmonary disease, where hæmorrhage occurs much more frequently during the night, after several hours of rest, than during any exertion in the day. It is now many years ago since I made this statement, which seemed to be absolutely true, when I was censured by a specialist for having maintained this before students, since it was obvious, he said, that there must be greater proneness to hæmorrhage during exertion. This opposition naturally made me observe still more narrowly, when I was more than confirmed in my original statement by discovering that it was the rule for hæmorrhage to occur in the night. I can only surmise that, during the quiet of sleep, the circulation is more impeded, and the tension on the vessels greater, than when the lungs are expanding, and the circulation free. If this be so, why should purely theoretic or imaginary reasons guide us in practice, and oblige us to frighten our patient suffering from hæmoptysis by telling him he must not make the slightest movements with his arms, must not move out of bed, or speak above a whisper? I have never yet met a medical man who has told me that he is acting on other than theoretic reasons for so doing, and he has no proof that this quieting and frightening method is the best." Dr. Wilks afterwards alluded to the purely pathological part of the compensating function to which he had referred—that is, the conservative or reparative processes, which are seen going on hand-in-hand with the destructive ones. He stated that "in examining a diseased organ, we do not sufficiently distinguish between the two processes; much less do we do so during the life of the patient. There is no doubt some general law in operation which provides for the two kinds of action, the formative and destructive; but the opportunity does not now serve to discuss the question of correlation of forces, and how far we may regard all processes going on in the body as of two kinds, vital and chemical, mutually opposed. A very valuable and scientific paper on this subject is to be found in the Guy's Hospital Reports by Mr. Golding-Bird. It wants but a moment's consideration to see how all organic life on the globe is necessarily associated with death, and that the same law is in operation in pathological processes. Let there be a softening or destruction of the brain; we find it surrounded by a formative cyst or inflammatory products; and in the syringo-myelus of the cord, the same thing is seen, large cavities associated with new products. It should be remarked, however, that, although reparation is going on, it is only by the formation of the simplest material; the highly complex structures are never renewed, except perhaps in children under special conditions; no injury to any of the parenchymatous organs is replenished by the same material; the repair is made by simple fibre. Bone may be replaced, and skin in an imperfect manner. In the case of the lung, the two processes, destructive and reparative, are always seen together; indeed, an ordinary phthisical lung could never have been witnessed without the double process. The ulcerated tissue would have produced a fatal hæmorrhage or pneumothorax long before any extensive change could have occurred in the lung; but the vessel becomes closed and the lung adherent. Now, the more chronic the case, the more are these reparative conditions marked, so that the pleura becomes greatly thickened, much of the pulmonary tissue cicatricial, and the cavity becomes lined with a firm membrane. Under these circumstances, we say that the signs of phthisis are well marked, the dulness on percussion is extreme, there is a falling in under the clavicle, and the pectoriloquy is pronounced. These are not so much signs of disease as of repair or cure. This is the reason why the young practitioner in such a case gives an unfavourable prognosis, forgetting the meaning of the signs, and, to his astonishment, may find his patient in much the same state a year afterwards. It is worthy of note that fatal hæmoptysis rarely occurs from the destructive process; it is due to the giving way of a dilated vessel in a localised and very chronically affected part of the lung. The same probably occurs oftener than is supposed in the stomach; the chronic ulcer is characterised not so much by the destruction of the tissue as by the new growth around it; and it is in connexion with this that the vessel becomes expanded and thinned, and subsequently ruptures. In case of scirrhous pylorus, it is quite as much the hypertrophied natural tissue which constitutes the tumour as the adventitious substance." Dr. Wilks concluded by giving a few other illustrations of the difficulty of distinguishing between constructive and destructive processes.

Drs. Coupland, Latham, Prosser James, W. R. Thomas, Skerritt, Pavy, and others, took part in the debate. A paper was also read by Dr. Byrom Bramwell on Right-sided Endocarditis.

SURGERY.

In the Section of Surgery, Dr. E. H. BENNETT, the President, took as the subject of his address, "Injuries of the Skeleton; Value of Accumulation of Specimens." After welcoming the foreign visitors, Dr. Bennett stated that he proposed to deal only with the subject with which he was himself most familiar, and to which he had devoted most of his work—namely, the pathological and clinical study of injuries of the skeleton. He showed that real progress here is to be made, not by the study of rare and attractive specimens and cases, but by the accumulation of large numbers of examples of ordinary injuries, and, above all, by laying down the rule never to reject or throw away such things as appear to possess no interest. He had often been asked, What is the use of taking up space with such numbers of duplicate specimens as the museum under his direction in the University of Dublin contains? To such he had always answered that only by the examination of a large number of individual specimens can the details of any typical injury be worked out, and by this means not only can the details of familiar injuries be rendered more complete, but new types can be discovered. He referred briefly, as an example, to the facts relating to Colles's fracture of the radius, which he was able to bring before this Association at the meeting in Cork in 1880. He showed then 54 specimens of this injury, and demonstrated that, among these, 23 gave proof of having been impacted fractures, while 31 were injuries in which positive evidences of impaction were absent. Since the time of that communication the collection had grown to 100, this number being reached only within the last few days. The figures now stood relatively at 48 and 52, and so perhaps the truth was more nearly reached. Dr. Bennett afterwards alluded to fractures of the ribs, fractures of the costal cartilages, and fracture of the metacarpal bone of the thumb.

Mr. REGINALD HARRISON opened a discussion on the "Diagnosis and Treatment of Tumours of the Bladder." It would be convenient to arrange tumours of the bladder into two classes or stages: (1) Those which during their entire existence, or for a portion of it, occasion either slight or no distinct indications of their presence; and (2) those which declare themselves by symptoms either seriously disturbing the function of micturition, or which by their constancy or degree threaten the life of the patient. The mere subjective evidence that a person has a tumour of this kind would not, he thought, warrant the adoption of any operative measures to effect its removal, even if in addition it were possible to demonstrate its existence by other means than digital exploration. Some tumours of the bladder which had been found in the post-mortem room appeared to have had no history connected with them, and instances had been known of the total disappearance, after varying intervals, of symptoms unmistakably those of villous growth or papilloma. By far the larger proportion of these patients, however, sooner or later pass out of the condition where operative interference is not to be recommended, and enter upon the second stage of their existence. Whether innocent or malignant, primary or secondary, in the great majority of them life would eventually be destroyed, either by persistent hæmorrhage or by the degree micturition is interfered with. The question of operative interference will now be entertained. Digital exploration of the bladder relative to the treatment of tumours seemed to be called for when it can fulfil at least three objects: (1) the relief of symptoms which are otherwise irremediable; (2) for verifying the diagnosis of tumour; (3) for determining whether the removal of the growth can be proceeded with. Whilst in France the claims of the supra-pubic operation have been forcibly urged by Professor Guyon, Pousson, and others, in this country, as well as in America, median perineal urethrotomy seems to be preferred. It provides a direct access to the more usual position of vesical growths; by a continuance of the incision forwards into the membraneous urethra and backwards to the extreme limit of the prostate, it affords more room for manipulation than at first sight appears, and it offers great advantages for drainage.

If a perineal exploration showed the position or character of the tumour to be such as would be benefited by an access from the front, should it be determined to remove it, there was nothing to prevent the addition of the supra-pubic incision, as Billroth demonstrated. The conditions under which these operations are often undertaken should not be forgotten. In addition to the tumour which it was purposed to remove, there were usually present, either in the bladder itself or in the organs associated with it, pathological changes which increased the danger arising from the retention of anything which ought to escape. The viscus was occasionally sacculated, the ureters were patent and frequently largely distended, whilst the kidneys were rarely sound where the obstruction caused by the growths had been of long continuance. Hence the gravity of any extension of a suppurative process after the operation. One of the best safeguards against a contingency such as this was thorough drainage. For removing the tumour, in some instances the finger-nail had sufficed; in others, various kinds of forceps. Quite recently Mr. Pitts had recorded a case where a growth was successfully removed by the écraseur. When, after the bladder had been opened and explored, it seemed practicable to remove the tumour, this should be effected as completely as possible; to take away a portion of it was to leave the remainder to inflame, suppurate, and possibly to become gangrenous, thus providing a fruitful cause for pyelitis through the largely dilated ureters. Mr. Harrison had had made for him an instrument consisting of an ordinary pair of bladder-forceps, with a free margin; by this contrivance it was almost impossible to do any damage to the wall of the bladder. The removal of the growth was effected partly by twisting slowly with the hand, and partly by the crushing action of the jaws of the instrument. If, however, the connexions of the tumour were extensive, and it was doubtful whether all could be got away without doing serious damage to the bladder, it would be better to be content with the opening, which might under all circumstances be safely made, and the drainage that this opening with a suitable apparatus would provide. The lesser proceeding had in many instances proved the means of arresting hæmorrhage, and of adding materially to the comfort as well as to the life of the patient, even where it had been found impossible either to remove the tumour or with safety to reduce its size.

Mr. W. ADAMS read a paper on so-called "Congenital Dislocation of the Hip," and Dr. Davies Thomas of Adelaide one on the "Treatment of Pulmonary Hydatid Cysts" by the establishment of large openings into the sac and subsequent free drainage, based upon thirty-two cases. He described various improved instruments employed in such cases.

PUBLIC MEDICINE.

Mr. DAVID DAVIES, in his address at the opening of the Public Medicine Section, remarked that during the last two or three years we had been looking with some apprehension on the threatening aspect of Asiatic cholera. Whilst the pioneers of the medical profession gave no certain sound to advance, we had to make the best use possible of the careful observations of those who had encountered this disease during former epidemics in this country or abroad. But, whilst scientific investigators had given us only unsatisfied aspirations, it was matter for congratulation that one of the best features of our national character had come to the surface: practicality. Instead of harassing the trade and commerce of this great country, and inflicting untold hardships on weary travellers by the restrictions of useless quarantine regulations, the Government authorities had substituted a minute and rigid inspection of all suspected ships and passengers approaching the British coasts; and had endeavoured, through the Local Government Board, to bring all districts, especially those most exposed to danger, to such a high state of sanitation, that the enemy, should it land, might find no foothold in this country. Another matter which had much engaged his attention as a health officer had been the registration of disease. By the last Registration Amendment Act, officers of health could get a weekly return of the mortality in their districts; but the returns, although correct transcripts of the entries on the official registers, presented many difficulties for classification. A not inconsiderable proportion of them had not been certified by any medical attendant, and no coroner's inquest had been held on the deceased. These returns might at once be dismissed as worthless. Then, among the causes of death professedly certified, we had many anomalies and divergencies of pathological views, which show very clearly that we had not as yet attained unity of creed, and that individual liberty of opinion was much respected in the profession; but, seriously speaking, these anomalies were a great hindrance to progress in sanitary science. For instance, the prevalence or absence of deaths from enteric fever in a district indicated pretty accurately its sanitary condition, and the purity or otherwise of its water-supply; but when deaths of bedridden octogenarians and of infants at the breast were attributed to this disease, they could only be accepted with serious misgivings; again, when tropical or sub-tropical diseases were returned as the causes of death of persons who had never been out of England, confidence in the value of our statistics was somewhat shaken. Time would not allow him to treat of the best way of increasing the reliability of our returns of mortality. The facts which had suggested his remarks made him think that the abolition of the apprenticeship system was not an unmixed good. Our younger brethren were better anatomists, more learned physiologists, and more expert surgeons than some of those he addressed; but those who had served country apprenticeships could distinguish the different zymotics and the ordinary diseases of a mixed community with a considerable amount of accuracy before they entered the medical schools. Some substitute for the abolished apprenticeship was needed.

Papers upon Cholera were read by Dr. R. PRINGLE, Dr. L. M. ARTHUR, and Dr. H. J. PAINE.

OBSTETRIC MEDICINE.

In the Obstetric Medicine Section, Dr. GERVIS, the President discoursed on "The Death-Rates from Childbirth and Cancer, and the Value of Antisepsis in Midwifery." After expressing his sense of the honour done him by the Council in inviting him to occupy this chair, Dr. Gervis said that he did not propose to enter, at any length upon the subject of puerperal fever; that was done last year by Dr. G. Kidd of Dublin, in his address at the Belfast meeting; but he should like to take the opportunity of saying that, while too much stress cannot be laid on the importance of antisepsis after confinement, too little notice had, he thought, been taken by most writers, and by many none at all, of the not less important subject of antisepsis before and during labour. The consideration of antisepsis before labour had to do with questions of drainage, ventilation, and general health; in a word, with the hygiene of the house and of the individual. The better the patient's surroundings, and the better her health, the fewer would be the sources from which germs may spring, the better able would she be to resist their entrance, and the less likelihood would there be of their development from within. Speaking generally, that is to say, surroundings had chiefly to do with heterogenetic sources of infection, and the patient's health with the autogenetic. Another and scarcely less important department of the antiseptic treatment of labour was undoubtedly the management of its third stage. Securing adequate contraction of the uterus by the plan of Credé, and so ensuring at one and the same time the complete expulsion of the placenta with its membranes, checking any tendency to the formation and retention of coagula, and promoting the closure of avenues of entry for germs, was, from the point of view of antisepsis, no less than from the point of view of the prevention of hæmorrhage, a proceeding of the first importance.

PSYCHOLOGY.

Dr. YELLOWLEES' address at the opening of the Section of Psychology was on the "Causes and Prevention of Insanity." In the course of his remarks he stated that "during the dark period when insanity was at once the reproach of medicine and the horror of the public, the mere suggestion that the nervous system required wise and watchful care was resented as an insult, because it seemed to impute a liability to mental disorder. Now that insanity is no longer deemed either a crime or a disgrace, there is some hope that the counsels and warnings of the physician may receive greater attention. The causes and prevention of insanity may well be considered together, for prevention can be intelligent and effective only in proportion as the causes are accurately ascertained and wisely avoided. The causes of mental disorder group themselves at once into two categories: those arising from conditions in the life-history of the individual, and those entailed upon him by ancestral inheritance. It is too true that both kinds of causes often coexist, and that the immediate or personal cause is potent only because it has

awakened and developed inherited weakness. Still, there are causes so directly personal to the individual, that they must be regarded as sole and sufficient, irrespectively of inheritance. The chief causes of this class are brain-injury, brain-exhaustion, brain-anæmia, brain-irritation, due to disease in other organs and organic changes in the brain itself. From such causes any brain may suffer, and they may induce insanity in persons wholly free from hereditary neuroses. The first condition of brain-health, as it is the first condition of the health of every organ, is due and suitable exercise. If the brainwork be unduly prolonged or unduly severe, injury must follow. Exercise, whether for duty or for pleasure, implies and procures rest; and for the subject of nerve instability sufficient and complete rest is indispensable. But exercise, relaxation, and rest, while essential to brain-health, are not everything. Our emotions and affections are the mightiest factors in our lives, and they afford a vast field for the manifestations of nerve-instability. It is in the regulation of our moral nature, and in controlling our fancies, impulses, and passions by reason and duty, that the hardest battle must be fought. From whom are the ranks of the insane mainly recruited? Certainly from the men and women whose minds and hearts are untrained and ill-balanced, who are swayed by caprice and passion, who are fretful at every difficulty and envious of their neighbours' good, who are incapable of sustained effort or daily self-denial, and whose lives are thus ill-regulated, changeable, and useless. The access of insanity is often but the ultimate and utter wreck of a vessel without a helm, which has already been many a time damaged by storms of passion on the quicksands of indulgence."

OPHTHALMOLOGY AND OTOLOGY.

At the opening of the Section of Ophthalmology and Otology, Mr. POWER, the President, in the course of his address on the "Progress of Ophthalmology," after briefly alluding to the literature of, and progress made in, the subjects of the discussion, observed that in the discovery of cocaine, a new era seems to have dawned. Since its introduction at the beginning of last year, many of the minor operations have been performed under its influence, and it seems to be admirably adapted for cataract operations without iridectomy, which can be performed after its application for a few minutes without the slightest pain being experienced. In relation to the action of this drug, he desired especially to call attention to the valuable results of an experimental inquiry into its properties which had just been instituted by Mr. Jessop, of St. Bartholomew's Hospital, supplemented by clinical observation and experience. His investigations have led him to conclude that it acts essentially as a stimulant to the sympathetic system of nerves, in consequence of which it effects dilatation of the pupil, constriction of the bloodvessels, diminution of the intraocular tension, enlargement of the palpebral fissure, and protrusion of the eyeball. His observations are of interest as affording an additional link in the chain of evidence proving that the sympathetic system innervates the dilator fibres of the pupil. It appeared to Mr. Power that the operations he performed with the first specimens of cocaine obtained, were attended with less pain and also with less dilatation of the pupil than those of more recent date; and he asked, Is this owing to the drug having been less carefully prepared to meet the great demand, or is it due to some variation in the composition and activity of different specimens, or, finally, is it owing to the circumstance that it produces more anæsthesia in some persons than in others? Quite recently a communication had been made to the Physiological Society of Berlin on the important subject of the influence of certain drugs on intra-ocular pressure. It had been shown, by means of a delicate mercurial manometer, that the pressure in the interior of the eye of a living cat was twenty-six millimetres, varying with the condition of the blood-pressure, and after death ten millimetres. It had been ascertained, too, that by stimulation of the fifth nerve the pressure could be raised to 200 millimetres. These statements have been supported by many observers, but considerable differences of opinion have existed in regard to the action of the alkaloids. Dr. Höltzke has employed a double manometer, and compared the tension of the eye to which an alkaloid had been applied with that of the opposite normal eye, and from his experiments it appears that eserine produces at first a considerable augmentation of the pressure, and then a reduction of it to a point below the normal. Atropine, on the other hand, first decreases and then augments the intra-ocular pressure. Speaking of sympathetic ophthalmia, Mr. Power remarked that although many interesting observations have been made which aid in the solution of the difficult question of of the etiology of sympathetic ophthalmia, there is still wide divergence of opinion in regard to the mode in which the disease is propagated amongst those who are best qualified to judge, a want of agreement that is probably due to real differences in different cases, and, perhaps, also due to imperfect observation. Here, as in some other examples, a settlement of the question will be effected by many converging lines of research, which it should be the function of the Collective Investigation Committee to collate and expound. It is only in this way that it will be ascertained whether it is, as some hold, of a reflex nature; or, as others believe it to be, an inflammation travelling down the optic nerve, or along the ciliary nerves; or, as yet others believe it to be, a disease of a secondary septic nature, either due to the entrance into the system of micro-organisms by injury or disease of the opposite eye, or as a kind of blood-poisoning, the poison being germinated in and by the lesion of the opposite eye. How much, again, still remains to be done in regard to the causes which lead to suppuration after operation! Excellent and valuable as the researches and experiments of Professors Leber, Landmann, and others are in regard to this point there seems to be something wanting in experiments which show that a fragment of iron, steel, or lead introduced aseptically into an anterior chamber of the eye excites no inflammation; that a fragment of copper, if in contact with the iris, excites suppurative inflammation, but not if it be fixed in the lens and projects freely into the aqueous humour; whilst mercury always excites this form of inflammation.

In the section of Pharmacology and Therapeutics, Prof. LEECH opened a discussion on the Duration of the Action of Drugs, and Dr. TALFOURD JONES on Hypodermic Medication.

A meeting of members of the Association was held on Thursday to consider the case of Dr. Bradley. Mr. LAWSON TAIT took the chair, and moved a resolution expressing the great satisfaction of the profession at Dr. Bradley's release. Dr. JEFFREYS seconded the motion, which was unanimously carried. Dr. JACOB then moved that a fund be opened to defray past expenses, and to aid Dr. Bradley to recover his former position. Mr. JACKSON seconded the motion. A sympathising letter was read from Sir W. Jenner. The subscription list was headed by a donation of ten guineas from the chairman, and a like sum from Mr. Buszard, Q.C., who defended Dr. Bradley at the trial. Mr. Arthur Jackson was appointed secretary, and Dr. Jeffreys, of Chesterfield, treasurer of the fund.

Mr. MARSHALL gave an address in Surgery, in which he contrasted the present state of surgery with that of forty years back.

A resolution was passed requiring that 100 names should be necessary to convene a general meeting instead of fifty as heretofore.

A garden party given in the afternoon by Colonel Hill, High Sheriff of Glamorgan, and Mrs. Hill, at their seat, Rookwood, Llanduff, was numerously attended; and in the evening a soirée was given by the President of the Association and the South Wales and Monmouthshire Branch at Park Hall.

The Address in Public Medicine was delivered in the Assembly Room on Friday, by THOMAS JONES DYKE, F.R.C.S., medical officer of health for Merthyr Tydfil. Dr. Dyke, in the course of his address, gave an account of the sanitary history of Merthyr Tydfil, reviewing the growth of the town, and giving a brief but lucid description of the sanitary works and statistical results, the water-supply, the sewers and sewer ventilation, and the medical inspection of the town.

At a meeting of the Poor-law Medical Officers' Association Dr. ROGERS, the President, reviewed the work of the Association during the year; he directed attention to some of the clauses of the Lunacy Law Amendment Bill as opposed to the interests of the profession, and also condemned the Medical Relief Bill.

THE Library of the Royal Medical and Chirurgical Society will be closed on Monday, August 10th, and reopened on Thursday, September 10th.

THE LANCET.

LONDON: SATURDAY, AUGUST 1, 1885.

THE extraordinary meeting of Convocation which was summoned to consider the proposals of Lord Justice FRY'S special committee for "promoting the carrying into effect by the University of London of the objects of the Association for Promoting the Establishment of a Teaching University for London" took place on Tuesday last, and after a long discussion was adjourned until the 3rd of November next, without having come to a definite decision on the merits of the proposed scheme. The question, therefore, as to whether the University is to remain a mere State examining board as at present, or to be so reformed as to give teachers a worthy position in its constitution and a real influence on its deliberations, is postponed until after the vacation. The scheme was so strongly supported by many influential graduates and opposed by others, that a further consideration of its merits was the only wise course Convocation could take under the circumstances. On the 6th of January in this year a special committee of forty members was appointed to consider the proposals lately published by the Association for Promoting the Establishment of a Teaching University for London, and to report thereon to Convocation; and on Feb. 24th the committee reported that the objects of the Association would, if carried into effect by this University, add to its usefulness and importance. This report was carried by a large and influential majority, despite the opposition of some of the members of the Senate present, who moved and supported a hostile resolution, and who would have observed a better sense of propriety if they had been silent on such an occasion and waited until the question came before them in the Senate. The special committee was then reappointed, to promote the movement, and to report to Convocation. It held a meeting on March 25th, and nominated a sub-committee from the different faculties to prepare a draft scheme, which, having been amended in some particulars at a meeting on June 26th, was adopted and presented to Convocation on Tuesday last. Convocation had therefore pledged itself to support a scheme embodying the objects of the Association for Promoting the Establishment of a Teaching University for London, and, unless it deliberately stultifies itself, must pass a scheme having those objects in view. Those objects, as defined by the Association, are—

"1. The organisation of University teaching in and for London, in the form of a Teaching University, with faculties of arts, science, medicine, and laws. 2. The association of University examination with University teaching, and direction of both by the same authorities. 3. The conferring of a substantive voice in the government of the University upon those engaged in the work of University teaching and examination 4. Existing institutions in London of University rank not to be abolished or ignored, but to be taken as the bases or component parts of the University, and either partially or completely incorporated with the minimum of internal change. 5. An alliance to be established between the University and the Professional Corporations, the Council of Legal Education as representing the Inns of Court, and the Royal Colleges of Physicians and of Surgeons of London."

Has the Special Committee done its best towards formulating proposals which shall embrace these objects, without substantially interfering with the vested interests of the present members of the University? The reply to this must be in the affirmative; for both Convocation and Senate have been as considerately cared far as was possible under a new departure. The introduction of a teaching element into the constitution is the object of the reform, and this could only be done by the formation of constituent colleges, faculties, and boards of studies, and the conferring on them a substantive share in the management of the University. If they were to have any power over the regulations and the examinations, it was impossible that any less privileges could be given to them than those indicated by the present proposals. We need scarcely remind our readers how strongly we have urged the introduction of this teaching element directly into the governing body of the University, whilst we have shown how many errors in judgment as to the conduct and regulations of its examinations might have been avoided thereby, and how bitterly it was opposed by the late Vice-Chancellor and by the non-teachers on the Senate. Many of the present members express themselves as favourable to such an introduction, but they systematically oppose every proposal calculated to give it a real influence, and which would prevent it from becoming a mere sham. If the teachers are to form a constituent part of the University, Lord Justice FRY'S scheme, either in its entirety or slightly modified, must be accepted. Mr. MAGNUS'S suggestion of voluntary boards of studies making academic recommendations to the Senate is too ridiculous to be seriously argued. Will the introduction of a teaching element interfere with the existing Senate? In the first place the members of the Senate to be elected by the faculties and the constituent colleges are merely to be added to the present Senate, and although the new members are to retire after a service of three years, the old members are to go on for life as heretofore. Everyone who is acquainted with the history of the University knows full well that the preponderance of Crown nominees and the life tenure of all senators, both nominated and elected, are the fatal blots in the constitution of the University. Could any reformation be carried out in a more conservative spirit? In the next place, will Convocation lose any of its present influence by the proposed changes? Let us consider what are the privileges which it now possesses. We have stated these most clearly in a former article (Dec. 6th, 1884), but it may be well to reproduce the enumeration.

"The powers of the graduates are therefore limited to discussing the affairs of the University and to determine their own mode of so discussing them, to electing their own chairman and clerk, to voting for a member of Parliament, to joining in the acceptance or refusal of a new or supplemental Charter, and to occasionally nominating a member to represent them on the Senate."

With the exception of voting for a member of Parliament, of joining in the demand for a new Charter, and of nominating nine out of thirty-six senators, the Crown selecting one at each nomination from a list of three

names, the privileges are merely recommendatory, and may be described as shadowy in the extreme. *Vox et preterea nihil* is the motto for Convocation; and although the Senate always listens respectfully, its actions seem to be but little influenced thereby. The Senate is the executive, and the members have until the past year or two paid but scant regard to those outside. These rights of Convocation, such as they are, are to remain unchanged under the new scheme, except that instead of nominating nine representatives in thirty-six, it will directly elect six in thirty, and have the opportunity of changing two of its representatives every year, for no member will be elected for more than three years. It will also have a representative on the board of studies, and its influence and vitality will be increased rather than diminished by the change. It would appear to us that those members of the Senate, *in esse* or *in posse*, who object to the reform of the governing body are merely making use of the jealousy of Convocation for their own ends, and that they are themselves jealous of the important position designed for the teachers by the formation of the boards of studies. But surely many of them who have had no experience as to what teaching or examining means must be aware of their unfitness for the position of permanent guides of what was intended to be a University, and not a mere examining body.

We anticipate that by the November meeting the scheme will be fully considered and its merits more plainly recognised, and that the jealousies of the graduates will be removed by judicious concessions. If the constituent colleges be also extended so as to include provincial institutions under proper safeguards, instead of being limited to those in or near London, and the tenure of senatorships be for five instead of for three years, the scheme must meet with the unqualified approval of all those who are not satisfied with the present position of the University. The University must be transformed, to quote the words of Lord Justice FRY, "into an organisation of men meeting together from time to time for the promotion of learning and education, and assembling as need requires to take counsel for the common good." It cannot remain, as at present, a mere assemblage of graduates in Convocation twice in a year—fruitful in discussion, barren in result; and really governed by a body of grave senators, solemnly deliberating over the minor details of, and fixing the days for, an examination, whilst unable to form an accurate judgment on even the severity or appropriateness of a doubtful examination-paper.

THE progress of the legislation for facilitating pauperism is just such as might be expected. Both parties have been compromised by it, and have the consciousness of having allowed political considerations to influence them when the good of their country should have been their only care. It is a bad case when the great organs of a party have to sound discordant notes and to confess their inability to support their leaders. The statesmen who have so trifled with their own principles have betrayed the uneasiness and the awkwardness proper to men who so act. After swallowing the camel, they have hoped to save their character by straining at a gnat. After conceding that an elector who in sickness goes to the parish for his doctor is to retain his electoral privileges, they insist that if the doctor orders certain things—which may be as essential to the recovery of his patient as castor oil or cod-liver oil—the patient is to be disfranchised. We do not dwell on the obvious objection to such distinctions arising out of the power which they would give to the medical man of making or unmaking voters. No doubt medical men are as impartial and fair in their politics as any other class of men, and probably a little more so. And, no doubt, in the selection of the alternative courses of treatment by depletives or by stimulants they are guided by strictly scientific motives. But the temptation to deprive a poor voter of his privilege by a process so pleasant to him as a course of port wine or brandy, and one so easy to the doctor, is by no means to be approved. Equally objectionable would be the reverse operation of such a law; in so far as it would tend to hinder the just use of stimulants in parish cases by a natural fear of losing political status. The love of a vote, as Lord SALISBURY argued, is probably not so deep or strong a passion as some politicians seem to think. Mr. CHAMBERLAIN and men of his order seem to think a vote a kind of panacea or luxury for which the poor are sighing. They talk as if the extension of the franchise will be quickly followed by the millennium. We do not think the poor have any such notions or are under any such delusions. They know that more depends on themselves than on law-makers. Still, in the new state of things created by the Franchise Bill the loss of a vote will count for something more than it used to do. And so it should. Political privilege should count for something, and, but for the mischievous legislation which is going on for electioneering purposes, it would count for a good deal. Medical providence would be encouraged, and, with it, every other kind of providence. Political privilege would in this case imply some personal character—a little industry, sobriety, and pride of independence,—old-fashioned virtues, but virtues that have not been eclipsed by any new or more showy ones. The honest and unfortunate pauper would not be less pitied, but he would have the more inducement to raise himself into the better ranks of his own class, and find himself at the sick club or the savings-bank from time to time. But all this chance of doing good by legislation is thrown away by each party against its conviction for the chance of catching a few more votes at the coming election.

Bad as this kind of legislation is for the new voters, it is likely to be still more disastrous in its effects on our legislators. Anything more paltry than the way in which each great party has abused the other over this "stolen child" cannot be imagined. The ill manners reached a crisis in the House of Lords, where there was a wrangle between the two great parties for the charge of a measure which they had both opposed until a few weeks ago. The question is where is this demoralisation to stop? As Lord SALISBURY said, "We stand on a slope." The slope seems, too, to be a very steep one. "It presses on Lord SALISBURY's mind that we shall be carried much further than we expect." So we think. The Duke of ARGYLL says he never remembers such a discrepancy between private conversation and public speeches as on this question. The outlook is serious. Out-

door paupers will soon want the vote; then in-door paupers. And, as Mr. READ suggested, some pliant Conservative will be found to suggest that the ballot-box be sent round the prisons. Verily "we are on a slope." And if the cause of providence and thrift is to be saved, we must not look to our legislators.

THE inquiry into the management of the Eastern Hospitals has at last terminated, and it will probably not be long before the inspectors who have conducted the investigation will make their report to the Local Government Board. Pending their decision, we do not desire to discuss the points upon which their verdict will rest, but the management of large medical institutions has so many important bearings, in relation both to the profession and to the public, that we may not improperly refer to some of the lessons which are to be learnt from the experience of the last few months. That persons holding responsible positions have been guilty of gross extravagance, will be the general conclusion of all who have read the accounts of the proceedings which have recently been given in the newspapers. The story thus unfolded is enough to make the strongest believers in local government abandon all hope in its present administration. We have the history of a Board whose members are appointed by the Boards of Guardians and by the Local Government Board, placed in a position which, while it must be condemned, must also excite the strongest feeling of sympathy for many honourable men who are connected with it. Responsible for its own actions, its responsibility must yet be shared by the superior Board, whose duty it is to check and control every step that is taken in the performance of duties imposed upon it by Act of Parliament.

Public opinion, indeed, will not be directed solely to the question whether one person or another has been wanting in fidelity to his trust, but the whole system under which it has been possible for large sums of money to have been quandered will be critically examined. It is our boast in England that, if our public work is not free from mistakes, it is at least conducted with honesty, and that we are free from the reproaches which sometimes attach to the performance of similar duties in some other countries. Nevertheless, it is always necessary to guard against those actions which spring from the worst side of human nature, and the system which was provided with this end we have been taught to rely upon as sufficient for its purpose. That it has failed, and grievously failed, must now be taken as an accepted fact, and the only hope is that the lessons which may be learnt will be turned to good account for the prevention of the repetition of such occurrences.

The position of the Metropolitan Asylums Board has in its public relations for years been seen to be full of difficulties. Created merely for the purpose of caring for paupers stricken with certain ailments, it has from force of circumstances come to have relations with the public health of a most important kind. Yet it has been given no organisation by which its duties in this respect could be performed, and it has, as a result, been driven from one rock to another until it is exposed to the risk of being submerged beneath an adverse public opinion. In its domestic relations it is now seen to be little, if at all, more fortunate, and the same defects in its organisation have in this direction also led to calamity. Its recent action with regard to one of its medical superintendents may be taken as a further indication of its unsatisfactory position in dealing with important medical questions. For years it has seemingly approved a system of treatment of disease to which its attention had on more than one occasion been especially directed; but suddenly, without warning, without the least indication of a change of opinion, the chief officer, whose action in this particular is stated to have been approved again and again, reads in a newspaper that he is suspended from his duties, before any charge is formulated against him, and before any opportunity is given him of explaining or replying to any circumstance that may have given rise to the displeasure of his Board.

But while it is not difficult to find matter for criticism and censure, it must not be forgotten that great service has been rendered to the metropolis by the Metropolitan Asylums Board since it was first constituted. It has drawn to itself many men who have zealously devoted their best efforts to the public service, and it has done much of its work in a way that merits nothing but approval. The mistakes of which it has been guilty are due in no small degree to its anomalous position, a position which will, perhaps, be only fully understood if a favourable reply should be given to the applications now being made for a parliamentary inquiry into its procedure. There is much reason to hope that out of evil good will come, and that the facts felicited by the recent inquiry may be turned to profitable account by those who have under consideration the better government of the metropolis.

WE regret to have to inform our readers that the ill feeling which has been excited in the United States by the action of the committees appointed to carry out the preliminary arrangements are such as to imperil not only the success of the Congress in 1887, but the very existence of the Congress itself. We have already mentioned the main facts in the dispute. At the meeting of the American Medical Association held in Washington in 1884 a committee of seven was appointed to act as a deputation to the Congress in Copenhagen to invite the Congress to the United States for its meeting in 1887. The invitation was accepted, and the committee forthwith proceeded to carry out various preliminary arrangements, and among other matters to make nominations for the officers of the different sections in the Congress. At the meeting of the American Medical Association in New Orleans in May of this year, a resolution was passed repudiating this latter action of the committee as being *ultra vires*, and another and larger committee was appointed to make all the preliminary arrangements for the Congress. This committee was nominated largely on a geographical basis, each State sending a representative. Very naturally this action of the Association gave great annoyance to the members of the earlier committee and to their associates in the earlier steps of the proceedings. The larger committee recently met at Chicago, and issued a long list of officers of the various sections in the Congress and of the members of committee. Many of the names on the earlier list are not to be found on the later, and it is stated that the new list contains the names of some men intro-

duced for geographical reasons rather than on account of their high scientific attainments—that an attempt has been made to have the officers representing as much as possible all parts of the Union. Into the merits of this question we cannot enter. And now we learn that many of the leading practitioners in New York, Washington, Boston, Philadelphia and Baltimore are so offended at the action of the American Medical Association and its new committee, that they have publicly severed themselves from the Congress, and allege that they will have nothing to do with the meeting in 1887 if the arrangements for it are to remain in the hands of the present committee. We cannot discuss the merits of this far from edifying quarrel, but we are too greatly interested in the International Medical Congress not to raise our voice in protest against a state of matters which is both a professional scandal and a serious peril to the continued existence of the Congress. Hitherto it has been considered binding upon all participating in the Congress that medical politics shall be entirely excluded from all its proceedings. But apart from that, we must impress upon our American friends the simple consideration that unless the whole profession in the United States combine cordially in the work of the Congress the meeting in Washington is foredoomed to failure. Party spirit is so alien to the whole spirit of the International Congress that a large proportion of those who have previously joined in the meetings would certainly, and with justice, refuse to visit the United States to be the guests of a faction. But we have too high an opinion of our Transatlantic friends to believe that this unseemly quarrel, which is disgracing them throughout Europe, will be allowed to continue. We trust that moderating influences will be brought to bear upon both parties, and that, forgetting the past and their own personal predilections, they will cordially unite to promote the success of the meeting in 1887. If, however, the breach now formed is allowed to widen and deepen, it will be the duty of the officers of the Congress in Copenhagen to seek at once an invitation from some country in which the medical profession will not find it impossible to combine for international purposes.

LAST year we drew attention to the effort that was made in the Chesterfield rural sanitary district to reduce the salary of Dr. ANGUS MACKINTOSH. It was admitted on all hands that he had performed his duties in a most energetic and satisfactory manner, but it was contended that the services of an officer of health might be secured at a cheaper rate, and for this reason alone an abatement of salary was decided on. The Local Government Board refused to assent to the reduction; and since, as far as we could gather from the published proceedings, Dr. MACKINTOSH also remained firm in his refusal to serve at a reduced salary, the authority, having to choose between paying the whole of the proposed remuneration out of the rates, or of re-electing Dr. MACKINTOSH at the original salary, ultimately decided on the latter course.

A proposal is now being made in the Hexham rural district which in almost every respect resembles the Chesterfield one, the main difference being that the Hexham proceedings are even more glaring in their retrograde character than those of the Derbyshire authority. In both instances the officers of health hold high rank in point of efficiency, they both give their whole time to their duties, and they both receive salaries which in any other sphere would seem ridiculously small in return for the class of services rendered. But in the Hexham case the salary is decidedly less than in that of Chesterfield, and the guardians of the northern union, whilst loudly praising the services they have had rendered to them, and whilst nearly all admit the importance of retaining an officer who devotes his whole time to the performance of his sanitary duties, have decided to offer to reappoint Dr. MCGRIGOR MACLAGAN after twelve years' service, provided he will accept a reduction of £50 in his salary, the amount for the future to be £250 a year. It is wellnigh incredible how such a request can be proffered to anyone who has had a scientific training, and who is able to render a public authority really high-class services; and it becomes a very serious matter to decide how such attempts to reduce salaries, already far too small, are to be met. The amount of the salary is often most deceptive. Thus, in the present case, we know that out of the £300 Dr. MACLAGAN has hitherto received, not far from £80 go in travelling and other expenses necessary to his official work. When a further deduction is made for rent of a house suitable for the residence of a professional man, the amount that is left is quite insufficient to maintain life properly, and the main fault we have to find is that so many officers have been ready to accept sanitary posts on such terms. But the time has come when officers of health and the profession generally must make a stand in this matter, unless they are prepared to see sanitary work placed on a footing inferior in point of salary to that which it already occupies; and we would in the first place point out the imperative necessity of an absolute refusal on the part of existing officers to accept reductions in their salaries. The Local Government Board have lately given evidence of their desire to support efficient officers in their positions, but it is obviously most difficult for them to do this when the sanitary authorities can retort that the officers concerned have themselves expressed their readiness to accept the reduction. This has, however, happened more than once, with the result that the salary has been permanently lessened. We know that the suggestion we are making is not always easy of adoption, that in some individual cases it may involve considerable sacrifice, and that there is unfortunately always a danger that an officer who makes a stand for the sake of the position he fills may find himself supplanted by an interloper who offers services—generally of an inferior sort—on the reduced terms proposed by the authority. But as matters now stand we see no alternative, and we would earnestly counsel all officers who are placed in a position like that in which Dr. MACLAGAN finds himself to make a powerful appeal to the central authority and to show a determined front, which will tend to ensure Government support, and, having once secured that support, to stand firm in the refusal to sanction the proposed reduction in salary. Such an attitude can alone secure for the public sanitary service the position which it deserves to occupy, and it will also go far to prove to the authorities themselves that skilled medical services are absolutely necessary to the promotion of health throughout the country. One of the prime movers in the retrograde step advocated at Hexham would evidently put the services of the medical

officer of health on a par with those of an engineer, an architect, or a nuisance inspector. Each of those positions requires to be filled by an adequately educated officer, but those filling such posts are incapable of fulfilling duties which involve the medical training necessary to the prevention of disease. The position of medical officer of health is unique in so far as the training requisite for the proper execution of its duties is concerned, and it devolves upon the medical profession as a whole to give their support to any one of their members who determines to make a stand, success in which is essential to the maintenance of a position in which we are all equally interested.

Annotations.

"Ne quid nimis."

DR. BRADLEY'S CASE.

Now that the public and the profession are relieved of the necessity of adding further proof of Dr. Bradley's innocence, and making reiterated appeals for his release, the question arises, Can nothing be done as a mark of sympathy with one who, in the exercise of his profession, has had the misfortune to endure the sorest trial? We do not wish to again travel over the ground, which from first to last is marked by a regrettable series of incidents. It is not our purpose now to question the correctness of the verdict as founded on the evidence presented to the jury, nor to criticise the remarks of the judge who presided at the trial, since the Home Secretary, after mature consideration of the merits of the case in all its bearings, has expressed himself satisfied that there was sufficient doubt as to Dr. Bradley's guilt to warrant the granting of a free pardon. This happy termination to an imprisonment of eight months' duration is matter for congratulation and rejoicing, and we venture to say that all liberal-minded men and women will freely add their expression of approval of Sir W. Cross's recommendation to the Crown. But in addition to this there will be many both within and without the ranks of the medical profession who will desire—nay, be anxious—to signalise their heartfelt thanks for Dr. Bradley's release, by placing on record a lasting proof of their commiseration. It has been suggested by Sir W. Jenner, President of the Royal College of Physicians, and other influential men, including Mr. M. C. Buszard, Q.C., M.P., who acted as counsel for Dr. Bradley at his trial, that a fund should be raised wherewith the latter may in some slight measure be compensated for his pecuniary losses and mental sufferings. To such a project we heartily offer any assistance the pages of this journal can afford. It will be seen from Dr. Jeffreys' letter that he has kindly consented to receive subscriptions in aid of this truly charitable movement, and we hasten to place our services in like manner at the disposal of those who wish to succour one who is "stricken, smitten, and afflicted." Dr. Bradley must be helped to regain the enviable position he held prior to the events which led to his forced seclusion, and to the temporary loss of home, friends, and reputation.

THE RELATION OF TYPHOID FEVER TO THE LEVEL OF SUBSOIL WATER.

THE relation of typhoid fever to the varying depth of subsoil water has long been the subject of study, Professor Max von Pettenkofer, and subsequently von Buhl, having watched the oscillations of the one and the varying intensity of the other with much care. The conclusions at which they have arrived have never been fully accepted by observers generally; and yet it is admitted that the Munich investigations were scientifically conducted, and that the relation between the two conditions was by no means an accidental one. Pettenkofer's view, that typhoid fever increases with a fall in the level of the subsoil water, and *vice versâ*, has been explained as meaning that with the recession of water the air enters deeper layers of soil, and there stimulates into activity and multiplication disease germs which were dormant so long as they were submerged in water. But it is quite certain that the relation referred to does not always exist. Typhoid fever in our own country has over and over again coincided with a rapid rise in the level of the subsoil water, as tested by the rise in surface wells; and though the fall to which Pettenkofer gives such prominence in this connexion has undoubtedly often brought about an increase of typhoid fever, yet many have believed that the relation of the two so generally observed at Munich is only brought about in an indirect manner. Few have, however, studied the matter exhaustively; and we are therefore glad to draw attention to the recent labours of Dr. Henry B. Baker, of the Michigan State Board of Health, on the subject. Careful statistical records have in Michigan shown either a coincidence between the low water and sickness from typhoid fever, or that the fever occurred in months succeeding the low water; and not only so, but comparison of the meteorological and other conditions leads Dr. Baker to conclude that no circumstance known to him varied in such a manner as to explain the unusual prevalence of that disease in certain months except the condition of the ground water, as indicated by the lowness of the water in wells. But local conditions of climate interfered with the uniform coincidence of the two conditions. Thus, in 1881, the earth above the water was found to increase from January to March, and to decrease from March until June; whilst sickness from typhoid seemed to decrease up to March, and to increase after April. In considering this state of things, Dr. Baker arrived at the conclusion that the cause of the low water up to March, 1881, might be the great depth to which the ground was frozen, and that the reason why the sickness decreased might be that the privies and other sources of contamination were also frozen, and so the liquid from them was prevented from gaining access to the wells. In other words, he was unable to dissociate the question of the rise and fall in the surface water from the influence which this condition exerted on the pollution of wells from the surrounding sources of contamination. This corresponds in the main with our own experience of many outbreaks in this country, and notably with the celebrated Terling epidemic, where wells and cesspools being sunk in a porous soil, a drought which emptied the wells produced no disease; but on the occurrence of a sudden rise in the well-water the accumulated cesspool filth was washed into the wells, and the inhabitants fell victims to typhoid fever to an extent almost unparalleled in British annals. Dr. Baker's main conclusions are that, in Michigan at least, the relation of the depth of water in wells to typhoid fever is not the same in summer as in winter. In summer, when vegetation is active and not decaying, typhoid fever increases with the fall in the level of the subsoil water, but that a decrease which follows on the rise of the water is maintained even though the level of

the subsoil water continues to be lowered, provided the surface of the earth is deeply frozen. But high-water level in winter and spring, if coincident with a ground not thoroughly frozen, is followed by an increase of typhoid fever. In short, the experience ascertained at Michigan would appear to be dependent on the extent which the contents of the wells are liable to be polluted by human dejecta which may at any moment contain the contagium of the disease. Water liable to such contamination is, as a rule, less dangerous when the level of the water in wells is high than when it is low, by reason of the greater dilution thus brought about; but this same comparative freedom from pollution may also be induced by conditions of frozen soil even when the level of the subsoil water is at its lowest. We are probably dealing in the case of typhoid fever with a particular poison, and, as Dr. Baker reminds us in his paper, experiments have shown that with another infection proved to be particulate—namely, the vaccine virus—the potency of the material is steadily diminished as dilution is increased. It may be that in some localities—as, for example, in Munich—a lowering of subsoil water always favours the spread of typhoid; but if so, the conditions can hardly be the same as those which exist in the rural places of England or of Michigan. The difference may possibly lie in the rise or not of a subsoil water for domestic purposes.

OVERWORK AMONG TELEGRAPH CLERKS.

THE last estimates of the Revenue Department present some interesting data relating to the health of clerks employed in telegraph work. In particular, the evidence which they afford of the existence of nervous over-action and exhaustion is noteworthy, and has already attracted attention in other quarters. It appears from this report that rather more than half of the pensioned *employés* owe their retirement from their duties to causes of this kind. Certificates of nervous disease are apt to be vaguely worded. This is a necessity of their nature. It is an expression of the obscurity which hides the process of degeneration occurring in a system at once very delicate and very comprehensive. It does not imply their falsity, for though the particular localisation of nervous disease may be at times impossible, its primary development in that system and not in another may be perfectly clear. Without therefore entering into minutiæ, we may accept the substantial truth of these duly certified cases, and ask ourselves in what circumstances of the telegraph official's life the explanation is to be found. Four months ago we drew attention to the youth of many of the clerks, and the long-continued and nearly incessant daily labour of twelve hours in a not too wholesome atmosphere, as causes which must in many cases wear out the general physical machinery. Such causes are at work, we admit, in every large city and in almost every calling. They are fruitful in producing that commonest of maladies which affect the overworked who follow a sedentary occupation—anæmia. It is their influence which renders the annual holiday season in the country to very many, to those especially who know least of it, a positive necessity and boon. Pure air and the use of their muscles are their best medicines. The telegraphist has, moreover, another and peculiar need, and in the want of provision for this we must look for the explanation we desire. His work is mental, and it is also monotonous. It involves long harping on one chord of his intelligence, with but little intermission and little variety. We have frequently to do, therefore, with a badly nourished brain, subject to sustained impulses passing along the nerve of hearing, and obliged by concentrated and generally uniform effort to convert these into visible expressions. Thus the brain, losing the exercise of invigorating reflection, and acting merely as a higher reflex centre, is apt to be driven to exhaustion by sheer wear and tear of certain lines of its nervous tissue. Short intermittent rest, it is well known, is sufficient for fairly prolonged mental action. The very speed of nervous processes indicates a like rapidity of recovery from the strain upon the nervous tracts. A change of mental work, moreover, has something of rest in it. For cells already exhausted of their force, adjacent or more distant cells come into operation. A shorter working time for the individual, with some interchange of functions from time to time between the members of the staff, would probably reduce the length of the telegraph pension list, and would also increase the efficiency of the department by perfecting the technical knowledge of each official.

THE REGISTRATION OF GIPSIES AND VAN-DWELLERS.

WHILE the case of the urban poor has quite recently been brought under especial notice, it has long been known that the state of the itinerant classes has been in several respects far from creditable to a civilised community. The observations of Mr. George Smith upon this subject will, it is hoped, obtain for the dwellers in vans and tents some of the benefits which have begun to reward the efforts of others on behalf of the "outcasts" of great cities. The degree of overcrowding in vans recorded by Mr. Smith would appear hardly possible if it rested on the testimony of a less accurate and experienced witness. Coming from him, and supported as it is by evidence to the same purpose by visitors among the poor in towns and by the facts respecting the nomadic populations and their diseases brought forward by Dr. Richardson, the statements made must, we fear, be accepted as substantially free from exaggeration. With respect to illnesses, it is well known that these wanderers possess one important safeguard in their daily free exposure to fresh air. The tent-life of the gipsies further favours them in the same respect during the hours of sleep, and it is no doubt to this hardening and purifying influence that the unusual healthiness of this class as regards all febrile disorders is due. The van-dwellers, on the other hand, are certainly subject to such of those complaints as may naturally arise from sleeping each night in a close, warm, and ill-ventilated space. Consumption and scrofula are the chief of their diseases, and when we learn that as many as eleven persons—men, women, and children—have been found inhabiting a cubic space of 2000 ft., badly ventilated, we can understand the meaning of this fact. It cannot be said that huddling together under canvas or otherwise is conducive to the maintenance of virtuous habits by either class of nomads. It is, indeed, difficult to see how purity of life in any sense can exist among them under such circumstances. Education, also, like disease, and from the self-same cause, the wandering life, is superficial and sporadic. Education Acts and all other legal measures are apt to miss a mark so mobile as the gipsy camp. The best available remedy for the disorderly neglect of the ordinary rules of health which belongs to this mode of life would be the extension of the registration system to vans and gipsy tents, as in Mr. Digby's proposed Bill. These habitations really come under the same category as the canal boats, which are already subject to registration and inspection. By providing that only a certain number of persons could sleep in a vehicle of given size, the formation of some sort of settled home for the family would become necessary, and a point would thus be gained in the conversion of the old nomadic life into a more settled state, and one, provisionally at least, as healthy. Other difficulties of habit, calling, race, and hygiene present themselves when we seek in almost any way to fix the dwelling-place of gipsy families. We do not know that it is quite necessary

thus to localise those inveterate wanderers. In their case, however, it is only by such a measure of registration, with an obligation to report their whereabouts, that we can hope to secure for the Education Acts anything like justice in their operation.

OSMIC ACID INJECTIONS IN TRIGEMINAL NEURALGIA.

DR. SCHAPIRO in a recent lecture before the St. Petersburg Medical Society gave an account of the chemical and therapeutical history of osmic acid, commencing with the discovery of the metal osmium in 1804 by the English chemist, Smithson Tennant, and concluding with his own observations made during the latter half of 1884 in the ambulance of the Imperial Philanthropic Society, when he employed injections of osmic acid in eight cases of trigeminal neuralgia, all of them severe, very obstinate, and of long standing. Of these cases five were cured, two improved, and one derived no benefit from the treatment. The formula used by him was—℞ Acidi osmici, 0·1; aquæ dest., 6·0; glycerini chemice puri, 4·0. This he found kept well for two or three weeks; while the simple watery solution began to become brown in three or four days, and afterwards turned black, and was then useless. As one gramme costs four roubles (eight shillings), being thus four times as dear as gold, it is of considerable importance to make use of a solution which will keep. The writer also found no dark specks in his solution such as are to be met with in that used by Neuber. The dose injected was at first five drops, afterwards more, the medium dose being eight drops. The only time when any unpleasant symptom occurred was in the case of a highly nervous lady who had been subject to epilepsy, and in whom the injection induced an attack of faintness very similar, in Dr. Schapiro's opinion, to the petit mal, and he suggests that with nervous patients the possibility of the occurrence of faintness should be borne in mind. The only case in which no improvement followed the treatment was that of a lady whose case was diagnosed by Professor Erb as hysterical neuralgia, and who suffered from severe pain in the neck and back of the head, and was believed to have some central lesion. In her case a single injection was followed by increased pain, and she refused to allow any more injections to be attempted. Dr. Schapiro not having observed any evil local effects such as were described by Leichtenstern (sanguineous bullæ, scabs, tedious boils) does not hesitate to inject under the skin of the face. He does not at present go deeply into the theory of the action of osmic acid, though he intends to study this experimentally; but he remarks that its most important action is to cause inflammation of the terminal nerve branches, its narcotic effect being of a secondary nature only.

OFFICIAL CHOLERA MEMORANDUM.

ANOTHER official warning has been issued to sanitary authorities as to the danger which this country incurs by reason of the existence of cholera on the continent of Europe, and if the repeated warnings which have from time to time appeared in official memoranda are disregarded, it certainly will not be the fault of the medical adviser of the Local Government Board. The country has now for many months past been systematically inspected by a staff from the central authority, and Dr. Buchanan expresses the opinion that the presence of imported cases of disease in the country will not be capable of causing much injury to the population, if the places receiving the infection have had the advantage of proper sanitary administration. He, at the same time, believes that in considerable parts of the country conditions favourable to the spread of cholera are now less abundant than at any former time. But whilst this may be true, speaking generally, it is but too well known that the exceptions are by no means far to seek, and the warning to sanitary authorities to get rid of all conditions likely to favour the spread of cholera needs to be very seriously impressed upon them. Special precaution is needed as to places on the coast line where cholera generally first makes its appearance, and this the more so because at this time of the year such localities tend to become crowded by the visitors who, under ordinary circumstances, would go abroad. The excessive demand made upon water-services by means of an influx of population, coupled with the drought of the past two years, will make it incumbent on authorities to guard against the temptation of resorting to the temporary use of supplies which have been abandoned because they were open to the risk of contamination; and all who are responsible for the health of communities will do well to study Dr. Buchanan's memorandum in all its details, and to apply the principles which are laid down in it to their respective sanitary districts.

"THE FASCINATION OF TERROR."

UNDER this heading the *Spectator* discusses at some length the opinion expressed by Mr. William Curran in a letter which appeared in our columns on July 18th. It is complained that the writer did not distinguish between that form of the mental impression of terror which deprives the subject of power and produces simple inactivity, and the form in which an impulse is awakened to perform some act, such as leaping over a precipice. Of this last-mentioned effect of sudden or excessive fear it is said that "it resembles more the asserted fascination of the bird for the serpent—a fascination which makes it fly into the mouth of its destroyer—than it resembles paralysis of any sort." Our contemporary suggests that "the active principle in the fascination which makes men throw themselves over precipices is the imaginative preoccupation with the horrible idea of where one's body would go to if one did fall, until at last the impulse to make the experiment is almost irresistible." The mind is supposed to be held spell-bound by the conception of a fatality until, or while, the mental engrossment established stirs the victim to the performance of an experiment. This is not, to our thinking, a very satisfactory hypothesis. It certainly fails to account for the phenomenon of mental impulse or fascination coming on suddenly; and it will not explain the fact that, while the mind is still actively engaged with the thought of danger, relief may often be obtained by averting the gaze, or even by covering the eyes. The truth is that persons who are easily affected in this way are nearly always extremely emotional, and they act instantly, without either thinking out probabilities or speculating as to consequences. Moreover, the "impulse," so called, is rather a *vis a fronte* than a *vis a tergo*. The feeling is one of drawing towards the abyss. It is difficult to overcome the sensation—if we may so call it—of being "pulled" towards the brink. The desire to jump is the result of the *pulling*, and seems to be like the inclination to leap a man would at the last moment experience if a trap-door were giving way beneath him, or from a standpoint which was being contracted under his feet. He *must* go, and he had better jump than fall. In some cases there is a sensation as if the ground were tilted up under the feet; in others there is the feeling that it is narrowing. Another form of the trouble often confounded with the "fascination of terror," has nothing whatever of *fear* in its constitution, but is an impulse to *fly*. We believe this last-mentioned feeling is a very common one, and will account for a large proportion of so-called "suicides." We are acquainted with persons who possess this feeling or impulse to such a degree that, although not in the least terrified by the aspect

of a gulf at their feet, they dare not trust themselves within a short distance from the brink of any precipice or on any height. It is not so much the depth beneath as the expanse beyond that attracts them. This we take to be an abnormal development, or perhaps it should rather be said an insufficient overlaying, of the subordinate faculty of "flight" which man possesses in common with, and actually of course derives from, the bird. It is morbid to have this faculty in the ascendant, just as it is to be dominated by the faculty of leaping like a salmon or of grovelling in the dirt like a beast. Man is neither a bird, a beast, nor a fish, but, as we know, he is the developmental sum of all these varieties of organised matter; and therefore underlying the surface characteristics of his species there exist the faculties, and may sometimes be felt the impulses, of the lower forms of life. Certain it is that in no inconsiderable proportion of instances there is a distinctly recognisable and formulated impulse to spring as a bird would spring from any exposed standpoint; and not a trace of fear, except that which is caused by reflection on the recognition of the impulse, enters into the composition of the state of mind described, and which sometimes ends in "suicide."

THE LATE SIR MOSES MONTEFIORE.

THE following particulars which we are able to give respecting the last illness of that venerable philanthropist, the late Sir Moses Montefiore, will doubtless be read with interest. By slow and imperceptible degrees the deceased gentleman had failed in health for the last nine months. His real illness dates from July 15th, when, without apparent reason and with no distinguishable disease, he suddenly became weaker, but without faintness or any marked symptom. He had had similar attacks before and no special alarm was felt by his medical attendant or friends. On July 16th and 17th he continued very weak, but on the 18th and 19th he appeared to be slightly better. For the next five days, from the 20th to the 24th, his condition was variable, and the weakness remained more or less constant. On the 25th, for the first time, definite symptoms showed themselves—viz., blueness of the lips, quickness of breathing, and crepitation at the bases of both lungs. There was no bronchitis, and the congestion was evidently of a hypostatic character, and attended with great danger. On the 26th the condition of the patient was certainly better, but not in such a marked degree as to give hopes of recovery. On the 27th all the bad symptoms returned, and dissolution became only a question of time. At 2 A.M. on Tuesday, the 28th, the condition became worse, the breathing shallow and 44 to the minute, and great difficulty was experienced in taking nourishment. From this time until death occurred, fourteen hours and a half later, every hour was expected to be the last. Throughout the day the pulse had been very feeble, and death occurred from syncope. For such a man death could have had no terrors, and it is with no feeling of surprise that we learnt that he died calmly, peaceably, and with an indescribable dignity.

CONGENITAL NÆVUS LIPOMATODES.

A WELL-ILLUSTRATED case of congenital nævus lipomatodes is reported in the current number of the *Journal of Cutaneous and Venereal Diseases*. The patient was a boy aged three years when first seen by Dr. J. N. Hyde, of Chicago. The face presented twenty light-brown superficial and circular pigmented moles, not furnished with hairs, the sizes varying from a pea to a bean. Similar discrete and almost symmetrically disposed blemishes were to be seen on the scalp, shoulders, chest, and surface of the tumours about to be described. The lower part of the trunk and a portion of both thighs were the seats of an enormous lipomatous and pigmented mole. The disease extended over an area which, roughly speaking, would be covered by a pair of swimming-drawers. It reached upwards to the sixth dorsal spine, and downwards to the lower fourth of the thigh. The colour was of a dark chocolate, and furnished with soft hairs about two inches in length. The tumour or tumours connected with this nævus existed for the most part on the right side and over the right flank and buttock. Some of the tumours were sessile, others pedunculated, and had the consistence and appearance of lipomata. Cases of the kind have been frequently recorded, yet seldom so extensive as the one in question. Bærensprung and Theodor were the first to draw attention to the arrangement of these and other congenital deformities along tracts supplied by definite nerves. Campana has furnished corroborative evidence of their views. Cases of multiple pigmented moles have been put on record by T. de Amicis and Hyde; the moles in one of the cases had an arrangement very like patches of herpes zoster along one side of the body only. Geber has reported a case where yellowish-brown and roundish spots were also found on the scalp. Paget has recorded the case of a girl, aged twelve years, in whom the left upper extremity and the greater part of the same side of the trunk and neck were deeply stained and covered with long harsh hairs from one to two inches in length. The lipomatous nævi are rarer in occurrence. Damon seems only to have been aware of the smaller kinds of lipomatous nævi. Neumann refers to large growths of the size of the fist. Manassei and Angelo Scarenzio have described cases of the extensive kind, and the last-named has reported an observation which is not at all unlike the one figured by Dr. Hyde.

PARLIAMENT HILL.

ON Thursday there was a large gathering of many hundreds of people on Parliament Hill. Their business was to admire the magnificent stretch of land which extends from Hampstead to Highgate, and covers an area of 264 acres. The spot is one of the most picturesque in the South of England, and certainly of the environs of London. Bounded by the eminences of Hampstead and Highgate, this land contains Caen Wood with all its beauties, the Highgate ponds, and all the undulating land that lies on Lord Mansfield's estate. But the business of the visitors on Thursday was not to be limited to admiring the scenery; it was of a more practical character than that. It was to save for ever from the builder, who has now approached the boundaries of this area, the land which is so well fitted to be preserved as the best of the open spaces London can ever possess. If Parliament Hill is lost to London, it is because so few people have thought about it. If Londoners really knew that within four miles of Charing-cross such a spot could be preserved, they would not hesitate as to the course which should be pursued. Londoners, however, can no longer plead ignorance. A committee has now been formed, and every effort is being made to enable the metropolitan ratepayers to know before it is too late the value of what they might possess. There is nothing that will better contribute to a knowledge of this than the little book which has been prepared by Mr. T. Eccleston Gibb, the vestry clerk of the parish of St. Pancras, in which the greater part of the land is situated. Mr. Gibb tells the story of the efforts which have already been made to save for London this open space. He wisely does not trust to the effect his words may have on a public too little disposed to read with care the details of a well thought out scheme, but he has appealed to the senses of his readers in another way. At the end of the book are a dozen etchings of scenery, prepared by students of his own school at Bushey, where his colleague, Mr. Herkomer, has

superintended their preparation. Londoners will not find it possible to see these without visiting Parliament Hill, and when this result is brought about there is no doubt as to the issue. Already this spot has been visited by the members of the Metropolitan Board of Works, and to this body must be entrusted the duty of purchasing the land for the benefit of the public. The cost is a large one, too large for private enterprise, but not too large for London; and London will, we trust, not be satisfied until the purchase is effected. It would be a source of profound regret if Mr. Gibb's sketches were only to serve in the future to teach the next generation that the local authority of 1885 was wanting in thought for the health of those who are obliged to live in this vast metropolis.

PASSAGE OF BACTERIA FROM MOTHER TO FŒTUS.

AN experimental inquiry which may throw light on the relations of the fœtus to the mother in infectious diseases has been communicated to the Académie des Sciences by M. Pasteur for M. Koubassoff. A full abstract of the paper is reported in *L'Union Médicale* of July 18th. The mode of procedure was to inject various cultivations of the bacillus anthracis under the skin of a pregnant guinea-pig. A careful examination of the fœtus was made after the death of the mother. It was found that the bacilli of charbon always pass from the mother to the fœtus; that the longer the time that elapsed between the inoculation of the pregnant mother and her death the more numerous were the microbes in the fœtus; that more bacilli from virulent cultivations pass over than from an attenuated virus; that pathological conditions of the membranes of the placenta and fœtus hindered the passage of the bacilli from the mother to the fœtus; that inoculation of pregnant females with a too powerful vaccine nearly always caused the death of the fœtus; that inoculation with a virulent virus after the mother had been protected by satisfactory vaccination nearly always killed the fœtus—in other words, the fœtus cannot be protected by maternal vaccination.

THE PROGRESS OF CHOLERA IN SPAIN.

THERE has been a break in the continuity of the statistics as to cases and deaths from cholera, which have hitherto reached us with a considerable degree of regularity; and although the first intermission was apparently owing to damage in the telegraphic apparatus due to a storm, it is much to be feared that the task of collecting returns day by day over an ever-widening area has much to do with the incompleteness of the statistics now received. There is, however, abundant evidence to the effect that cholera is still on the increase in Spain, and that provinces which last week were free from infection are now centres of the disease: this remark applying specially to the provinces of Segovia, Cadiz, Granada, Cordova, and Almeira. In short, the western and southern coasts, and the provinces extending from them far inland, are now widely infected. There is no further record of any extension beyond the limits of Spanish territory; France, Portugal, and Gibraltar being so far free from cases of the disease.

WOMEN'S DRESS.

THE *Queen* publishes some useful remarks by Lady John Manners on the subject of the dress of women and their personal adornment generally. The article in question is characterised by good sense and pure taste, and will be found, we hope, to have dealt an effective blow at the absurd habit of over-dressing which mars in a considerable degree the bearing of all classes at the present day. Neatness and cleanliness, as the aims of good taste in dress, rather than display, may be said to form the text of this timely paper. The essential connexion between personal cleanliness and health is also well brought out. It is satisfactory to note that some stress is laid upon the fact that those who value their appearance should make much of the freshness common in youth, but often spoiled by the usages of an artificial life. A habit of bathing regularly is enjoined, and late hours and the atmosphere of heated rooms deservedly and unreservedly condemned. Another important point touched on in this article is the weight of dress, which we agree with the author ought to allow of the wearer doing the greatest amount of work with the least possible fatigue. There is also a stroke at various kinds of "dress-improvers" and other unnatural but fashionable deformities. We may close these remarks with the words of a quotation from Mr. Ruskin used by her ladyship, that what is required is "decency and wholesomeness of dress; thoroughly good in substance, fitted for daily work, becoming to rank in life, and worn with order and dignity."

ECZEMA OF SPINNERS AND WEAVERS.

A DISEASE of the skin which appears to have been but little studied has been the subject of investigation by M. Leloir. The hands are the parts attacked; the condition is symmetrical, though the left hand appears to be affected more than the right. The inner surface of the thumb, the outer and palmar surface of the index finger, and the ulnar and palmar border of the hand and little finger are the parts chiefly diseased. The disease may invade the whole extent of the hand. It is an eczema, and may assume various forms, from the erythematous to the papular, vesicular, pustular, and squamous varieties. Itching is always present, but varies in intensity. The fingers and hands are also frequently stiff and difficult to move. The affection is said to be confined to those artisans who work in wet flax. The water in the material becomes saturated with various impurities which act as irritants on the macerated epidermis. The treatment consists in leaving off the work for a time and using the ordinary means to abate the eczema. The water in which the flax is worked should be renewed as often as possible. The hands should be smeared with glycerine whilst the weavers are at work. Ordinary hygienic measures as to washing and drying the hands are all-important.

MARSEILLES AND THE RAG TRADE.

THE formidable character of the epidemic in Spain renders it necessary to urge the immediate sanitary improvement of the important ports nearest to the centre of infection. Marseilles, with its large trade in rags and its notoriously bad hygiene, naturally suggests itself as a point of danger. It was in the rag-dealers' quarter—a fair proportion of the rags coming from Spain—that there were so many victims from cholera last year. The precautions now taken to prevent the mischief travelling farther are of the weakest and most futile description. When the alarm caused by the outbreak of cholera still influenced the authorities, they proposed that a disinfecting apparatus should be built to purify all the rags that came into the port. Messieurs Geneste and Herscher, the celebrated sanitary engineers, forthwith made some experiments; but the bales of rags were so large and tightly packed that it sometimes required an entire day for the necessary degree of heat to reach the centre. On the other hand, by splitting the bale in two and introducing a sound or metallic tube in each half, the required heat could be obtained in from ten to forty-five minutes. As this can be easily done, there is no reason why a disinfecting stove for this purpose should not be at once constructed. The cost, as compared to the object in view, is

trivial. The problem has been solved by practical experiment, and yet months elapse and nothing is done. The rags now, as in the past, are slightly fumigated (this operation does not succeed even in killing the fleas); then the filthy merchandise is sent to all parts of the world. From mere indolence Marseilles allows this grievance to continue, and even the alarming proportions of the cholera epidemic so near at hand do not suffice to convince the local authorities of the heavy responsibility that rests upon them.

EAST LONDON MORTALITY.

A RECENT issue of the Registrar-General's weekly return affords the means for comparing the mortality in East London during the second quarter of this year with that occurring in other parts of the metropolis, after distribution of deaths recorded in public institutions. During the thirteen weeks ending July 4th, the annual death-rate in Registration London was equal to 19·3 per 1000 of the estimated population, against 20·8, the mean rate in the corresponding periods of the nine years 1876-84; it was lower than the rate recorded in the second quarter of any year since 1880, when it was 18·9. In East London, which has an estimated population of nearly three-quarters of a million, the death-rate last quarter was equal to 23·4 per 1000, while in the remainder of the metropolis it was but 17·9. Mortality in East London last quarter therefore exceeded that in the rest of London by more than 30 per cent. In the several sanitary areas of East London the death-rates ranged upwards to 24·9 in Bethnal-green, 31·0 in Stepney, and 35·6 in St. George's-in-the-East. At such a time as the present, bearing in mind the mortality from cholera in East London during the visitations of 1849, 1854, and 1866, these high death-rates possess more than local interest. It may be further noticed that the zymotic death-rate in East London last quarter was equal to 5·0 per 1000; whereas in the other parts of London the rate did not exceed 2·8. The excess of zymotic mortality in East London (principally due to a fatal epidemic of measles) was therefore proportionally greater than that from all causes.

PRAGUE STATISTICS OF SMALL-POX FOR 210 YEARS.

DR. HAAS has taken the trouble to look through the registers of the Hospital of the Brothers of Charity in Prague for 210 years, and has compiled from them tables of the patients treated in the hospital during that lengthened period. Special prominence, however, is given to small-pox statistics, which show that from 1670 to 1815—that is, in the prevaccination period—the mortality from small-pox was 27 per cent., but that from 1815 to 1885 the mortality has been only 4·53 per cent. The author expresses a strong opinion that the State should compel every person not only to be vaccinated but to be revaccinated.

RHEUMATISM AND SEPTICÆMIA.

DR. MORITZ communicated to the St. Petersburg Medical Society the case of a woman aged thirty-four, which was regarded as a typical case of acute joint rheumatism with swelling and severe pain in both knees. There was nothing remarkable discovered on clinical examination, the heart sounds being merely described as muffled. In spite of salicylate of soda, the condition of the knees did not improve, so a puncture was made in one, and some purulent fluid was drawn off; the temperature fluctuated between 39° and 40° C. The former diagnosis was now exchanged for that of inflammation of the knee, and the patient was sent into the surgical clinic, where nothing could be made out except the weak heart sounds; and it was looked upon as a case of septicæmia or miliary tuberculosis. Petechiæ were observed a few days before death. At the post-mortem examination scarcely any fluid was found in the knee; the spleen was large and pale; there was degeneration of the heart muscle, with vegetations, and in one place a small ulcer on the mitral; there was also blenorrhagic endometritis. The patient therefore, though at first she suffered from rheumatism, died from septic infection.

PROFESSOR HUMPHRY.

AT a general meeting of resident medical students of Cambridge University, held at Caius College on November 10th, 1884, it was resolved to invite the co-operation of all Professor Humphry's old pupils in attempting to obtain a portrait of the Professor worthy of being presented to the University; this being considered the form of testimonial most likely to meet with the approval of all those students in science as well as in medicine, who in past years attended the lectures delivered by him as Professor of Anatomy and Physiology. A provisional committee was appointed to promote this object, and we understand that Mr. Ouless, R.A., has been entrusted with the work of producing the likeness of the Professor. The application for subscriptions, limited to two guineas, has, we learn, been responded to almost unanimously.

REGENERATION OF NERVES.

"FRESH Researches on the Regeneration of Peripheral Nerves" was the subject of a paper communicated to the Académie des Sciences by M. Vanlair (*L'Union Médicale*, July 11th). If the process of regeneration be studied in the divided sciatic nerve of the dog, after the lapse of several years it will be found that the initial phases of the evolution are accomplished in a definite manner, whilst the final stages are by no means uniform. In all cases the lower extremity of the central portion of the nerve exhibits a proliferation of the marginal zone of nerve fibrils, a disappearance of the axial fibres, and a sprouting of new fibres, which project into a new formation of connective tissue. The whole forms at the central end of the divided nerve a "neuroma of regeneration." The further changes vary in different cases. Sometimes the neuromatous formation remains sterile; it stretches a little distance from the divided end, then becomes thinner, and disappears without giving rise to any nerve fibres. Sometimes genuine nerve fibrils are formed. This organisation, which is often achieved only after a series of fruitless attempts, results in the formation of a longitudinal and systematic arrangement of nerve fibres. The author insists on the importance of mechanical conditions in assisting the regenerative process; the chief mechanical condition is the accurate apposition of the divided ends.

CARDIOPATHY AT CHANGE OF LIFE.

A RECENT writer, M. Clement, proposes under the term "Cardiopathie de la Ménopause" to comprise all the cardiac perturbations to which women are liable at the change of life. The derangements are said to be unaccompanied by the physical signs of valvular disease. We cannot say whether the author uses the above mode of expression as a precaution against misinterpretation. The difficulty always has been to decide whether there is any valvular affection or not. Some amount of enlargement of the heart is not uncommon at the menopause, and it is certain that cardiac murmurs are by no means unfrequent at this period. The commonest age at which the cardiopathy manifests itself, following M. Clement, is from forty to forty-six. Palpitation, dyspnœa, sensations of fainting even ending in syncope, feeble unequal pulse, and œdema of the lower ex-

tremities are the symptoms which are put down to the cardiopathy. However severe the paroxysmal affection may be, a cure nearly always results. Restoration takes place slowly. In the final attacks the symptoms lose their gravity, and only appear at long intervals, possibly then being induced by some obvious cause, such as fatigue, a chill, or some powerful emotion. The pathogeny of this paroxysmal affection is believed by M. Clement to be a special disposition brought about by the menopause, in which there is a profound alteration of the innervation of the great sympathetic, which is translated as an over-action of the accelerator nerves and as a vascular spasm. The presence of anæmia sometimes aggravates these disorders. Infusion of digitalis, opium, and extract of convallaria are the chief remedies recommended.

ATTENUATION OF CHOLERAIC VIRUS.

As the outcome of a fresh series of experiments undertaken by MM. Nicati and Rietsch, it is asserted that the virus of cholera can be attenuated under certain conditions. The conditions appear to be cultivation of the bacilli in a bouillon or nutritive gelatine at a temperature ranging between 20° to 25° C. Last October these investigators announced the artificial production of genuine cholera in guinea-pigs as the result of the inoculation of fresh cultivations of the virus into the digestive tube. Now they state that they are unable to get these results. The difference is explained as a matter of attenuation of virus. Further details here are impossible owing to the brevity of the report from which we gather the above information.

DEATH OF MILNE-EDWARDS.

M. HENRY MILNE-EDWARDS, whose illness we have previously announced, died at Paris on July 29th. He was born at Bruges in 1800, and studied medicine at Paris. He then devoted himself to natural history, and in 1838 succeeded Curvier in the Academy of Sciences, and from 1841 he was Professor at the Jardin des Plantes, eventually taking the place of Geoffroy St. Hilaire. He resigned the chair of physiology in 1876, when his son Alphonse was appointed to it. Milne-Edwards was President of the French Scientific Association, and published a large number of scientific works.

MEDICAL MISSIONARY APPOINTMENTS.

THE Edinburgh Medical Missionary Society's students who have left or are about to leave for abroad have been appointed to the following missions: Mr. Churcher, M.B., C.M. (agent of the mission to the Kabyles), Algeria; Mr. James Wilson, L.R.C.P. & S., Johore; Mr. Scholes, L.R.C.P. & S., the Congo; Mr. Fry, M.B., C.M., Neyoor, S. Travancore; Mr. Pritchard, M.B., C.M., China.

SMALL-POX AMONGST SANITARY OFFICIALS.

WE announced last week the occurrence of another death from small-pox of a sanitary officer whose zeal in the performance of his official duties led him to fulfil work which more properly belongs to the undertaker; the officer in this case being Mr. J. Lotan of the Oundle rural district, where the disease was prevalent. But we feel bound to add that this contracting of small-pox amongst officials belonging either to sanitary bodies or to hospitals is an occurrence which should not take place. Those who advise the sanitary or hospital authorities from a medical point of view ought to insist, far more than we fear they have hitherto done, on the efficient vaccination or revaccination of all persons who run the risk of coming into contact with cases of small-pox. We do not know what were the precise circumstances of the Oundle case, except that the officer was evidently not adequately protected; but we have more especially in mind occurrences in the metropolis which have gone to show that in the very institutions where the first importance should attach to efficient vaccination this has been sadly disregarded. The late Mr. Marson never engaged a nurse or attendant in small-pox cases without himself seeing that they had first been successfully revaccinated; and although this may be impracticable in the emergencies of sanitary work, yet the operation should never be neglected directly the exposure to infection is recognised.

DISQUALIFICATION BY HOSPITAL RELIEF.

THE *Law Journal* says that by the common law of Parliament, and by section 36 of the Reform Act, those are disfranchised who receive parochial relief "or other alms," and maintains that the application of this law would disqualify those who get relief either at any hospital or dispensary supported by voluntary contributions. The difference seems to be that in the one case the relief is reported by the overseer, while in the other it goes unnoticed. The present unsatisfactory and careless legislation removes disfranchisement only in the pauper.

HEALTH OF CHILDREN IN WORKHOUSE SCHOOLS.

A SERIOUS outbreak of enteric fever has occurred at the West London Workhouse schools, attacking, it is said, about 200 of the children. We hear that the outbreak has been the subject of a special inquiry by one of the medical inspectors of the Local Government Board. The whole subject of the health and mortality statistics of children in workhouse schools calls for thorough and careful investigation. The reports of the Local Government Board give no satisfactory statistics bearing on the subject.

EPIDEMIC PNEUMONIA.

S. TRIWUS, a district medical officer in St. Petersburg, communicates to the *Vrach* an account of an epidemic of pneumonia in the city. From April 26th to May 17th, out of 133 patients seen by him 23 had croupous pneumonia (17·2 per cent. of the whole). In one dwelling there were 3 cases, in another 2; in one house there were 4, in another 3, and in two 2 cases. Sixteen of the patients lived in houses with gardens.

HOSPITAL SUNDAY.

THE sum received at the Mansion House on behalf of the Metropolitan Hospital Sunday Fund has reached £33,350.

Mr. Fred. W. Lowndes, of Liverpool, writes:—"As one who was mainly instrumental in getting Hospital Sunday established here, I have read with much interest your account of it in London. I have always thought that the result was miserably inadequate. We have raised here nearly £12,000 in one year—generally over £10,000,—and London ought to do at least five times as much."

THE report of the examination made by Colonel Sir Francis Bolton of the water supplied by the several metropolitan water companies during the month of June, states that the Thames water supplied by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies, contained, on the whole, slightly more organic matter than the previous month's samples, the increase being greatest in the case of the Southwark and Grand Junction Companies. The water drawn from the Lea and distributed by the New River and East London Companies exhibited no material difference from the supplies during May. All the samples were clear and bright.

THE Government have decided to appoint a Royal Commission to inquire into the education and the general condition of the blind. The Duke of Westminster will be president, and the Commission will consist of the Bishop of London, Mr. Mundella, Dr. Campbell (of the Norwood School for the Blind), Dr. Armitage, and Dr. Tyndall Robertson (of Brighton). The idea of a Royal Commission on this subject originated with Mr. Fawcett. It was approved by the late Government, and the appointment of a Commission was projected by them. For the purpose of collecting information on the question, Mr. Mundella and Dr. Armitage will proceed to the Continent, whilst Dr. Campbell will institute inquiries in the United States.

THE Committee, consisting of the Archbishop of Canterbury, Cardinal Manning, the Bishop of London, Mr. Samuel Morley, M.P., and Mr. R. T. Reid, Q.C., M.P., who have undertaken the investigation of the truth of the statements recently published in the *Pall Mall Gazette* on the subject of the treatment of young girls, has concluded its sittings. They report that, after carefully sifting the evidence of witnesses and the materials before them, and without guaranteeing the accuracy of every particular, they are satisfied that, taken as a whole, the statements in the *Pall Mall Gazette* on this question are substantially true.

AT a meeting of the liberal electors of the Acton District of the Ealing Parliamentary Division of Middlesex, held at Acton on Tuesday, July 28th, Dr. W. B. Gordon Hogg, M.D. Edin., of Bedford-park, Chiswick, was finally accepted as the Liberal candidate to oppose Lord George Hamilton at the approaching general election. Dr. Gordon Hogg has been most unanimously and enthusiastically received by representative meetings of Liberals at Chiswick, Ealing, and Acton, and the local leaders of the party are very sanguine as to the result of the contest.

THE Berlin University Institute of Public Medicine is about to be removed to the newly built Morgue. A wing of this building is to be furnished with offices, post-mortem rooms, laboratories, and two lecture-rooms. The director is Professsor Loman, who has held the post since 1864. He is also the town physician and forensic physician of Berlin. His predecessor was Joh. Ludw. Caspar, the well-known medical jurist, who founded the Berlin Institute of Public Medicine.

ON Saturday afternoon a new iron screw steam-vessel, built for the Port Sanitary Committee by Messrs. Edwards and Symes, was successfully launched at their works, North Greenwich. The boat, which is fifty-nine feet long and eleven feet beam, is arranged to accommodate the medical officer and inspectors forward, and has a large cabin aft for the conveyance of sick persons to hospital. She was built from the designs of Dr. Collingridge, the medical officer of the port, and Mr. A. D. Lewis, naval architect.

THE Clinical Professorship in Moscow vacated by Prof. J. Nowazki is to be filled by the appointment of Dr. W. Kusmin, who was for many years assistant to Prof. Skilifassowski, first in St. Petersburg, subsequently in Moscow, and who has recently been editor of the Annals of the Moscow Surgical Society.

DR. BRUNETTI, a distinguished professor of the University of Padua, has, it appears, been sent to Spain by the Italian Government, in order to study on the spot Dr. Ferrán's system of inoculation against cholera.

DR. SHAUTA'S work on Operative Midwifery has just been translated into Russian. The author is well known to many English medical men, who owe a good deal of their practical acquaintance with midwifery to their attendance on his operative and diagnostic courses connected with Prof. Spaeth's obstetric clinic in Vienna.

DR. TILT and Dr. HEYWOOD SMITH have been elected Honorary Corresponding Fellows of the Gynæcological Society of Boston, U.S.A.

THE CRIMINAL LAW AMENDMENT BILL.

BY F. W. LOWNDES.

THERE is evidently a very strong feeling prevalent throughout the country in favour of the above Bill being passed this session, especially such of its clauses as relate to criminal assaults on females of immature age. There is also a very general agreement that it should be made a felony for any male to have carnal knowledge of a female under the age of fourteen, even with consent or solicitation on her part. And that it should be a misdemeanour to have carnal knowledge of a female above the age of fourteen and under the age of fifteen, according to some; sixteen, eighteen, and even twenty-one, according to others.

Now, it is only ten years since the former Act was amended. Prior to 1875 ten was the age under which carnal knowledge was a felony; twelve that under which it was a misdemeanour, the female being a consenting party. The Act 38 and 39 Vict. (Offences against the Persons Act, 1875) repealed that of 24 and 25 Vict., which contained the provisions just quoted, and substituted the following: "Whosoever shall unlawfully and carnally know and abuse any girl under the age of twelve years shall be guilty of felony" (Sect. 3). "Whosoever shall unlawfully and carnally know and abuse any girl being above the age of twelve years and under the age of thirteen years, whether with or without her consent, shall be guilty of a misdemeanour (Sect. 4).

As Dr. Tidy has well shown in his "Legal Medicine," vol. ii., p. 188, quoting from Sir J. Stephen's "Digest of the Criminal Law," "the words 'whether with or without her consent' are obviously a mistake, for if taken literally they make it impossible for a rape to be committed upon a girl between twelve and thirteen, as they provide that carnally to know a girl between twelve and thirteen without her consent is a misdemeanour. The words ought either to be omitted altogether or else changed into 'even with her consent.'" Since then the question has been decided as Sir J. Stephen anticipated, but the incident is instructive as showing the danger of hasty or ill-considered legislation. Now, the extension of the age provided by the Act of 1875 must have brought to justice many men who under the former Act would have escaped, and still the demand is that the age shall be extended. Whether it is that these crimes have increased, or that the limits of age fixed by the Act of 1875 have from the first been too low, I need not stop to inquire. It will be more profitable to discuss what, medically speaking, should be the limits of age in the Bill now before Parliament. Most surgeons who have had these cases brought to their notice will agree that carnal knowledge of a girl under the age of puberty is a cruel outrage, which ought to be considered a felony and severely punished. Now, what is the most usual age of puberty in females judging from the commencement of menstruation? In Taylor's "Medical Jurisprudence" third edition, p. 295, I find it given as fifteen years. Perhaps in this country the most frequent age for the commencement of menstruation may be taken at fifteen years. Tidy, in the work already quoted, says, "Without, therefore, fixing an absolute age (which is impossible), it is evident that girls in this country usually menstruate for the first time somewhere between fourteen and sixteen, the average of a very large number of ordinary cases giving nine as the earliest and twenty-two as the latest age for primary menstruation." Both authori-

ties quote the statistics of Dr. Hogg, who found that of 2000 inquiries personally made, menstruation commenced in 146 at twelve years of age, in 253 at thirteen, in 437 at fourteen, in 502 at fifteen, in 270 at sixteen, in 157 at seventeen, and in 97 at eighteen. Of this same series of 2000 cases, in 465 menstruation commenced at thirteen and under, in 1463 cases at thirteen and up to eighteen. All these opinions and statistics accord, as it appears to me, with present experience, instances of precocity, though frequent, being still the exceptions which prove the rule. And it must not be forgotten that the cases of exceptionally late menstruation more than counterbalance those exceptionally early.

It appears to me, therefore, that in demanding the age of fourteen as the limit of the felony clause we are making a perfectly reasonable request, one which is fully warranted by the above statistics and our present experience. In fact, if anything, the age is too low, and might be made fifteen if the object of the Bill is to prevent the repetition of cruel outrages. And in asking that the age of sixteen should be the limit of the misdemeanour clause nothing can be more just, since it would be affording the protection of the law to many immature girls whose consent could only be given in sheer ignorance of what they were doing. Here, again, there are many forcible reasons for extending the age to eighteen. But if the felony age be raised two years, and the misdemeanour three years, it seems to me to be a great advance, considering that all these facts and opinions were available to those who framed the clauses of the Act of 1875; and, though medical practitioners are most anxious to see women and children protected from the scoundrels who would outrage them, either for brutal lust or in the hope of their getting rid of loathsome diseases, we must not lose sight of the danger to which any extension of the age will give rise. By extending the age we open the door widely to false charges easily made, but difficult, if not impossible, to disprove. We have had a recent painful instance of the danger to which a country practitioner was exposed by simply seeing an epileptic female in his surgery. Unless care be taken, it may be necessary to pass an Act for the better protection of males, with a special clause to protect medical men. It will be more necessary than ever to have every complainant's story fully corroborated by good medical evidence. I would add more, but am most anxious to avoid debatable matter where there is so much unanimity of opinion, and also to limit myself to what is likely to be of assistance in coming to a conclusion.

Liverpool, July 28th, 1885.

A TEACHING UNIVERSITY FOR LONDON.

ON Tuesday last an extraordinary meeting of the Convocation of the University of London was held in the theatre of the University-building, Burlington-gardens, W. It was convened in compliance with the terms of a duly signed requisition "to receive and consider the report of the special committee appointed at the meeting held on February 24th, 1885, to promote the carrying into effect by this University of the objects of the Association for Promoting the Establishment of a Teaching University for London, and to take such steps to carry the same into effect as may seem desirable."

The Chairman of Convocation, Mr. Frederic John Wood, LL.D., presided.

Lord Justice FRY presented the special committee's report, which, after reciting the House's resolution reappointing it on February 24th, 1885, proceeded as follows:—"Your committee thus reappointed, at their first meeting held on March 25th, 1885, appointed a sub-committee to confer with the Association, and thereafter to prepare a draft scheme for carrying into effect the objects in view. This sub-committee having held six meetings, and on two occasions conferred with the executive committee of the Association for Promoting a Teaching University for London, prepared a draft scheme which was considered by your committee at a further meeting held on June 26th, 1885, and having been by them adopted, with certain amendments, is now submitted (see appendix) for the consideration of Convocation." The appendix in which the report embodies the draft scheme was taken as read. He moved the following resolution "That the report of the Special Committee and the scheme therein comprised be received and adopted." He hoped the scheme would be the means of adding greatly to the utility of the University and promote the interests of higher education. If, as he hoped, the day might come when they should petition Her Majesty to grant them a charter to carry into effect that scheme, or any other founded upon it, then they should ask for a charter conceived in a wide and liberal spirit. They should ask Her Majesty not to confine their corporation to the function of ascertaining the efficiency of the candidates by examination. They should ask her to give them wider powers to influence, if possible, the higher education of the metropolis and to do the utmost they could for the promotion of learning and science. If, therefore, the scheme was so far matured as to enable them to obtain a charter, that charter must be drafted with a wise foresight into the future of the University. There might be wiser projects than that of the committee, but he would ask Convocation not to reject the scheme, because its rejection would be fraught with grave perils to the University. He trusted that if they did not accept it as it stood, they would consent to its modification.

Mr. W. SCOVELL SAVORY, M.B., seconded the resolution, and said that the University owed everything to the character of her degrees. If he thought that anything in the scheme would in any way cause any deterioration in that respect he would not countenance it. His opinion, however, was that it would greatly widen the basis and extend the opportunities for good of the University in the future.

Mr. JOHN W. BONE, B.A., proposed as an amended that the words "And adopted" be omitted. The scheme was a large, comprehensive, elaborate, and highly complicated one, and the members were within their right in declining to commit themselves to all the details of the scheme.

Mr. P. MAGNUS, B.A., BSc., seconded the amendment.

Principal SILVANUS THOMPSON, D.Sc., B.A. (Finsbury Technical College), opposed the scheme, on the ground that it had ignored the fact that the University was a well-developed, and not an infantile institution, as had been suggested. The University should be made not merely an examining body, but one which had control and influence in university teaching and college teaching in London and the country at large. He urged that in no case should the number of the members of the senate to be elected by Convocation be less than one-third of the whole of the members. The scheme actually proposed to set up, not another convocation of teachers, but four other convocations having no connexion and having different interests.

Mr. W. J. SPRATLING thought the scheme proposed by the committee was ill-arranged.

Mr. JAMES ANSTIE, Q.C., B.A., did not consider the objections were worth much notice, for the functions of Convocation would remain absolutely unchanged.

Mr. W. T. THISELTON DYER, M.A., D.Sc., defended the report of the committee, and said he should despair of the University if the scheme were rejected.

Mr. RICHARD HOLT HUTTON, M.A., urged that as the scheme was of so complex a character it should be carefully considered, and for that purpose be referred to the annual committee.

Mr. A. W. BENNETT, M.A., B.Sc., moved, after some further discussion, that the House be adjourned. This was seconded by Mr. A. MCDOWALL, B.A., B.Sc., and ultimately carried by 78 against 44. The next meeting was fixed for Nov. 3rd.

PRECAUTIONS AGAINST CHOLERA.

ON July 16th a conference was held between Dr. Buchanan medical officer of the Local Government Board, and the metropolitan medical officers of health, as to the preparation of London against cholera. Dr. T. Orme Dudfield, President of the Society of Medical Officers of Health, presided, and introduced the subject by an account of the precautionary steps that had been taken since the summer of 1883.

Dr. Dudfield said that in 1884, when cholera made its appearance in France, a conference to concert measures of defence for London was held by the medical officers of health with the General Purposes Committee of the Metropolitan Asylums Board, that Board having been constituted a local authority, under the Diseases Prevention Act, 1855, by the Diseases Prevention (Metropolis) Act, 1883. One of the objects of the latter Act was to make better pro-

vision, as regards the metropolis, for the isolation and treatment of persons suffering from cholera; and by it the Board was enabled to utilise its buildings, ambulances, and staff for the execution of the powers and duties imposed on it under both of the Acts. Immediately after the passing of the Act the Board resolved to provide accommodation for cholera patients in the metropolis as a whole, without respect to parochial boundaries, partly by the use of its own hospitals, partly by the acquisition of sites for huts, and partly by arrangements for the use of beds at general hospitals, at infirmaries, and at workhouses. The beds placed at the disposal of the managers were about 1700, irrespective of 250 available at their own hospitals. The design in the proposed arrangements was to constitute the managers a first line of defence for immediate action on the appearance of cholera. Had cholera come, the local authorities (the vestries, &c.) would have been liable to provide additional accommodation for the sick, if necessary, as well as refuges for the other inhabitants of houses where there were cholera patients too ill to be removed to a hospital.

The questions considered by the conference were mainly how an epidemic of cholera could best be met, and what convenient buildings or sites for hospitals could be made available in the several districts. The committee had previously addressed a communication to the medical officers of health, in which questions connected with provision of hospitals, disinfection of excreta, hand ambulances, notification of cholera cases, &c., were dealt with; and to that communication a collective reply was sent, in September last, through the secretaries of the Society of Medical Officers of Health. In 1883, and again in 1884, the Local Government Board addressed communications to the several local authorities with reference to cholera. The Board also issued two orders, with a covering explanatory letter: one addressed to the Port of London sanitary authority, who of necessity would constitute the outer line of defence; and the second addressed to all the other port sanitary authorities, &c. The Board also forwarded, for the information of all sanitary authorities, a memorandum, prepared by their medical officer, on "Precautions against the Infection of Cholera."

The regulations issued by the Board in 1866 imposed on the vestries, &c., as local authorities, the duty of making arrangements for the prevention and treatment of cholera, including the medical visitation of the houses of the poorer classes, for the purpose of detecting cholera and diarrhœa, and the supply of medical attendance and nursing, and of medicine and disinfectants. What the Board had done in the past might be taken as an indication of what it would be likely to do in the future, should occasion arise. It was to be supposed, also, that the arrangements of the Asylums Board, made in 1883 and 1884, would hold good at the present time.

Dr. George Buchanan then made some observations, in the course of which he said that the threat of cholera in 1883 was more serious than that which was now exciting attention, it being a peculiarity of cholera in Europe that it usually made a threatening appearance for about three years in succession, and then was heard of no more for a time. His object in desiring to take counsel with the medical officers of health was to avoid fuss and panic. In this country no confidence was reposed in quarantine, but much in the practice of medical inspection through the officers of the several port sanitary authorities. The duties of those authorities were defined by the Board's order of 1883. A vessel coming from an infected country was required to anchor where ordered until inspected. If found healthy, all passengers were allowed to go free. If there were any sick on board, they were detained, the healthy being allowed to depart, their several destinations being recorded; the vessel was then disinfected. The Board had been looking to the defences of the principal ports by inspections made in 1884. During the present year the survey had been extended and the various arrangements had been investigated, including the provision of hospital accommodation. The Board's inspectors had looked closely to the condition of the several towns, to see how the local authorities were doing their work. At some of the ports the arrangements were very satisfactory, the authorities being careful and thoughtful in their preparations. At others there were shortcomings. The inspectors had striven to rouse less careful authorities. A principal danger to be guarded against was the importation of cholera in rags, and it had been arranged, therefore, that rags should not be imported without proper precautions against possible mischief. With reference to the Society's views on the supervision of the water-supply from its source to the consumer's cisterns, expressed at the conference in 1883, he had conveyed them to the Board. In Colonel Sir Francis Bolton, the water examiner, the Board had an officer who devoted much thought and attention to this important subject. His reports showed the work done by the companies to safeguard the supply. In 1883 the sanitary authorities took steps for securing the purity of the water in the cisterns, and this combination of local vigilance with central vigilance should be continuous. With respect to hospital provision, it should be remembered, as had been stated, that the Asylums Board would only profess to provide a first line of defence. The 2000 beds they were said to be able to provide would be very useful, but it was important to inquire as to the convenience of the proposed hospitals in point of nearness to those of the sick who would be likely to require hospital treatment. The vestries and district boards would form the second line of defence, and this would be the more important should cholera come. The vestries would have to provide places of refuge for the healthy when the sick were too ill to be removed. With this branch of work, probably the most important, as being the best way of dealing with cholera, the Asylums Board would have nothing to do, nor with the provision of disinfectants, medicines, &c. Dr. Buchanan concluded by inviting suggestions from the officers of health.

A discussion followed, in which the medical officers of health for Poplar, Bermondsey, Marylebone, Newington, the Strand, Chelsea, Battersea, and others took part, the general feeling being—and with this Dr. Buchanan agreed—that in the event of cholera making its appearance the local sanitary authorities should be prepared to do their own duty, not resting too much on what the Asylums Board might be able to do, but depending primarily on their own efforts, alike for removing those conditions which allowed the spread of cholera, and for dealing with the disease if it became epidemic.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5414 births and 3332 deaths were registered during the week ending the 25th July. The annual death-rate in these towns, which had slowly increased in the preceding four weeks from 17·6 to 19·5 per 1000, was again 19.5 last week. During the first three weeks of the current quarter the death-rate in these towns averaged only 19·1 per 1000, against 20·9, the mean rate in the corresponding periods of the nine years 1876-84. The lowest rates in these towns last week were 9·1 in Brighton, 10·9 in Norwich, 11·2 in Wolverhampton, and 11·4 in Bolton. The rates in other towns ranged upwards to 24·6 in Manchester, 26·2 in Newcastle-upon-Tyne, 27·0 in Preston, and 36·4 in Leicester. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been but 448 in the third week of June, have since steadily increased (owing to the increase of mortality from diarrhœa, mainly infantile) and were last week 735; these included 409 from diarrhœa, 125 from measles, 108 from whooping-cough, 37 from scarlet fever, 25 from "fever" (principally enteric), 24 from diphtheria, and 7 from small-pox. No death from any of these zymotic diseases was recorded last week in Wolverhampton, whereas they caused the highest death-rates in Preston, Newcastle-upon-Tyne, and Leicester. The annual death-rate from diarrhœa last week, which averaged 2·4 per 1000 in the twenty-eight towns, ranged upwards to 3·6 in London and in Preston, and 13·4 in Leicester. The greatest mortality from measles was recorded last week in Manchester and Newcastle-upon-Tyne; from whooping-cough in Preston and Birkenhead; and from scarlet fever in Newcastle-upon-Tyne, Preston, and Leeds. The 24 deaths from diphtheria in the twenty-eight towns included 19 in London, while only 5 occurred in the twenty-seven provincial towns. Small-pox caused 26 deaths in London and its outer ring (including 12 recorded in the Metropolitan Asylum Hospital and camp at Darenth), and but 1 in the provincial towns viz., Liverpool. The number of small-pox patients in the Metropolitan Asylums Hospitals situated in and around London, which had declined in the preceding seven weeks from 1389 to 775, had further

fallen to 648 on Saturday last; the admissions, which had been 94, 101, and 118 in the previous three weeks, declined last week to 72. The deaths referred to diseases of the respiratory organs in London, which had been 177 and 197 in the previous two weeks, declined again last week to 180, and were 11 below the corrected weekly average. The causes of 66, or 2·0 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Bolton, and in five other smaller towns. The largest proportions of uncertified deaths were registered in Oldham, Salford, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had steadily declined from 20·8 to 18·1 per 1000 in the preceding five weeks, rose again to 19·7 in the week ending July 25th, and was 0·2 above the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 13·3 and 14·1 in Aberdeen and Edinburgh to 23·7 in Paisley and 24·1 in Glasgow. The 482 deaths in the eight towns included 29 which were referred to diarrhœal diseases, 17 to whooping-cough, 8 to measles, 8 to "fever," (typhus, enteric, or simple), 4 to scarlet fever, 3 to diphtheria, and not one to small-pox; in all 69 deaths resulted from these principal zymotic diseases, against 60 and 54 in the preceding two weeks. These 69 deaths were equal to an annual rate of 2·8 per 1000, which was 1·5 below the mean rate from the same diseases in the twenty-eight English towns. The 29 deaths attributed to diarrhœal diseases showed a further increase upon recent weekly numbers, but were 28 below the number in the corresponding week of last year; they included 16 in Glasgow and 7 in Edinburgh. The mortality from diarrhœa in the Scotch towns last week was, however, very considerably below that which prevailed in the large English towns. The 17 fatal cases of whooping-cough showed a decline of 5 from the number in the previous week, and included 12 in Glasgow. The 8 deaths from "fever," however, exceeded the numbers returned in recent weeks; 4 were returned in Glasgow and 2 in Aberdeen. Six of the 8 fatal cases of measles, 3 of the 4 of scarlet fever, and all the 3 of diphtheria occurred in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 61 and 71 in the previous two weeks, further rose last week to 82, and exceeded by 16 the number returned in the corresponding week of last year. The causes of 82, or more than 17 per cent., of he deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 22·6 and 27·2 per 1000 in the preceding two weeks, declined to 19·5 in the week ending the 25th July, and was lower than in any previous week of this year. During the first three weeks of the current quarter the death-rate in the city averaged 23·1, the rate during the same period being equal to 19·8 in London and 14·7 in Edinburgh. The 132 deaths in Dublin last week showed a decline of 52 from the number in the previous week, and included 13 which were referred to the principal zymotic diseases, against 19 and 20 in the preceding two weeks; 4 resulted from diarrhœa, 3 from measles, 2 from "fever" (typhus, enteric, or simple), 2 from scarlet fever, 1 from diphtheria, and not one either from small-pox or whooping-cough. These 13 deaths were equal to an annual rate of 1·9 per 1000, the rate from the same diseases being 5·7 in London and 2·3 in Edinburgh. The fatal cases of diarrhœa, "fever" and scarlet fever showed a decline from the numbers returned in the previous week; the 3 of measles corresponded with the number in the previous week; and the death from diphtheria was the first recorded since the end of June. Five inquest cases and 4 deaths from violence were registered; and the 40 deaths in public institutions showed a decline from recent weekly numbers. The deaths both of infants and of elderly persons were considerably fewer than those returned in the previous week. The causes of 13, or nearly 10 per cent., of the deaths registered during the week were not certified.

BELFAST HOSPITAL SATURDAY will be held this year on August 29th.

Correspondence.

"Audi alteram partem."

THE CAUSE OF THE IMPEDED PULMONARY CIRCULATION IN THE COLLAPSE STAGE OF CHOLERA.

To the Editor of THE LANCET.

SIR,—Mr. Wharton Jones, in the postscript to his paper on the Circulation of the Blood in the last number of THE LANCET (p. 147), makes the following statement: "In the recent debate at the Royal Medical and Chirurgical Society, it was contended that the state of cholera collapse is owing to spasm of the pulmonary capillaries. Here, I suppose, it was spasm of the extreme arterial ramifications that was meant." Although Mr. Wharton Jones does not mention me by name, he evidently refers to my explanation of cholera collapse in opening the debate on that occasion. Now, if he will do me the justice to read my paper, which is published in the Proceedings of the Royal Medical and Chirurgical Society (March 1885, p. 368), he will find that nothing is there said about spasm of the pulmonary *capillaries*, but that the impeded circulation during collapse is attributed to spasm of the pulmonary *arterioles*, which, I suppose, he will admit to be equivalent to "spasm of the extreme arterial ramifications."

So much for this uncalled-for rectification of an error which had not been committed. Then Mr. Jones goes on to say that although "the arterioles of the aortic system have strong muscular walls, and are liable by the contraction thereof to undergo various degrees of constriction, sometimes even to the closure of their calibre,.....the extreme ramifications of the pulmonary artery, on the contrary, have less strong muscular walls, and are not observed to undergo much, if any, constriction of calibre."

I am not aware by what method Mr. Jones estimates the strength of the muscular arterioles of the lung, but that they, like the systemic, have muscular walls is a fact easily demonstrated; and if the pulmonary arterioles of equal calibre have less muscular tissue than the systemic, the probable explanation is to be found in the correlated fact that the right ventricle of the heart is less powerful than the left, and the pulmonary artery has less elastic resiliency than the aorta; therefore less muscular tissue and power are required to enable the pulmonary arterioles to regulate the circulation by the exercise of their physiological stop-cock function. That the united resisting force resulting from the contraction of the whole of the pulmonary arterioles is more than equal to the propelling power of the right ventricle seems to be demonstrated by the abrupt arrest of the pulmonary circulation, with distension of the right cavities of the heart, which occurs in the last stage of apnœa or so-called asphyxia.

I would particularly direct Mr. Wharton Jones's attention to Dr. Lauder Brunton's experiment with muscaria, referred to at pp. 381-82 of my paper, and fully described in the *Practitioner* (Dec. 1884, p. 412). Dr. Brunton shows that while the intravenous injection of muscaria speedily arrests the pulmonary circulation of the rabbit, by, as he believes, exciting contraction of the arterioles of the lungs, the subsequent injection of atropia relaxes the arterial spasm, and so sets free the pulmonary circulation. With all due deference to the high authority of Mr. Wharton Jones in matters relating to the circulation of the blood, I venture to submit that, while, on the one hand, he is in error when he denies the active and forcible contractility of the pulmonary arterioles, his own attempt to explain the impeded pulmonary circulation in cholera collapse by blood-thickening and agglomeration of the corpuscles through the loss of water, is inconsistent with many of the unquestionable facts of the disease.

I am, Sir, yours faithfully,

Savile-row, W., July 27th, 1885. GEORGE JOHNSON.

THE WATERS OF TARASP.

To the Editor of THE LANCET.

SIR,—I hardly think the waters of Tarasp are known to the profession as they deserve. My attention was several years ago drawn to their efficacy by a very well written

monograph by my friend Dr. S. Sedgwick. I have since visited them several times, and am now again under treatment here for hereditary gout, the only inheritance I have from my Border forefathers. I am so charmed with Tarasp and its baths that I venture to send you a few lines in order to make its healing waters further known.

Tarasp lies at the lower end of the Engadine Valley, 4000 ft. above the sea level. It is surrounded by wooded hills, and by mountains rising to 10,000 ft. in height. The Kurhaus is a most comfortable hotel, managed in the best German style, and the charges are moderate. The baths are under the same roof. I have tried many baths in various places, but none were so pleasant as the steel baths here, bubbling with carbonic acid gas. The spring is just on the other side of the river Inn. The above table shows its comparative constituents.

The Tarasp waters thus resemble the Carlsbad Sprudel and those of Marienbad, both of which I have taken. But Carlsbad is a hot, stuffy, unpleasant place. The Marienbad waters are rather more purgative in their action, owing to the larger quantity of Glauber salts. Marienbad is a lovely mountain place in the middle of Bohemia, and is much to be commended; but Tarasp is 2000 ft. higher. The journey to Tarasp by Calais and Bâle, and thence to Landeck, by the Tyrol railway, brings one within eight hours' ride by diligence of the baths in three days, at a cost for railway fares of £7.

Dr. Pernisch, the Spa physician here, is a good English scholar, and has published this year in English a capital account of the place—"The Health-Resort of Tarasp-Schuls, Engadine; its Remedies and Indications briefly described for the guidance of Physicians."

COMPARATIVE ANALYTICAL TABLE OF THE LUCIUSQUELLE (TARASP).

In 16 ounces = 7680 grains monocarbonates.	Tarasp Luciusquelle.	Glauber's salt springs.		Common salt spring.	Simple soda spring.
		Carlsbad Sprudel.	Marienbad Ferdinandsquelle.	Kissingen Rakoczy.	Vichy Grande Grille.
Total solid matters	93·8	42·4	70·6	85·6	40·8
Carbonate of soda	26·4	10·0	11·2	—	27·0
Sulphates of soda, magnesia, and potash ...	19·0	19·9	36·6	4·5	2·3
Chloride of sodium	28·2	8·0	13·1	44·7	4·1
Carbonic acid gas, free and half free, cubic inches	76·2	12·6	68·8	41·8	13·1
Temperature in Fahrenheit degrees	44°	164·5°	50·5°	51·2°	102·5°
Elevation in feet, about	4000	1200	1900	600	800

The climate is perfect: hot sunshine at midday, and cool mornings and evenings, which mean bracing to overworked nerves and quiet refreshing sleep. The range of the thermometer since I have been here has been about 55° F. in the early morning and at night, and 75° in the shade at noon—a less difference than at Pontresina up the valley. I have always found these daily variations in the high Swiss stations most bracing and health-giving.

I am, Sir, your obedient servant,

Bad Tarasp, July 22nd, 1885. C. LOCKHART ROBERTSON.

THE CASE OF DR. DAVID BRADLEY: LETTER OF THANKS.

To the Editor of THE LANCET.

SIR,—I gladly avail myself of this, my earliest, opportunity to heartily thank you, and, by your kind permission, through THE LANCET, my many other kind friends, for your laborious and persistent efforts to obtain my release from Leicester Prison, which have happily ended in success. Believe me that words fail to express my gratitude for all the sympathy shown me during my imprisonment. It is needless for me to comment on the case further than to say that I am perfectly innocent; and I am much obliged to those in authority for their great kindness in granting me a free pardon for a crime I did not commit.

I remain, Sir, yours ever sincerely,

Barrow Hill, Chesterfield, July 23rd. DAVID BRADLEY, M.D.

To the Editor of THE LANCET.

SIR,—As the recent conviction and imprisonment of Dr. Bradley has practically ruined him, it has been kindly suggested by a number of members of the profession and others, including Sir William Jenner and Mr. Marston C. Buszard, Q.C., M.P., that a fund be raised for the purpose of helping him to re-commence practice. Would you kindly allow an appeal to be made on his behalf through the columns of your journal? Dr. Bradley has a delicate wife and one child, who are now entirely dependent upon the charity of friends and relations. I shall be happy to receive subscriptions, and will give any explanations required.

I remain, Sir, yours faithfully,

Eastwood House, Chesterfield, July 25th. RICHARD JEFFREYS.

CHILDBED MORTALITY IN LONDON MATERNITY HOSPITALS.

To the Editor of THE LANCET.

SIR,—In the discussion on the paper read by Dr. Priestley at the last meeting of the Obstetrical Society, and published in THE LANCET of July 18th, two important but widely diverging statements were made. First, Drs. John Williams and Champneys said that the total mortality at the General Lying-in Hospital from all causes during the last four years and a half was 9 in 1360 cases—that is, 1 in 151, or ·66 per cent.; secondly, Dr. Priestley, whilst congratulating those gentlemen on the excellent results they had obtained, said that he was informed by Dr. Grigg that of 1100 deliveries in Queen Charlotte's Hospital from Feb. 14th, 1884, to July 1st, 1885, there had been only one death, and that was from puerperal convulsions. But surely there must be some mistake, for I have before me the report of Queen Charlotte's Hospital for 1884, and from this I find there were 5 deaths in 775 cases; I have also before me the Sanitary Chronicle of the parish of St. Marylebone, and from the annual report by Mr. Wynter Blyth therein contained I find there were 7 (and not 5 only) deaths at that hospital in 1884; and during the first five months of this year (the June report not being yet published) there were 6 deaths, making altogether 13 deaths occurring between January 1st, 1884, and June 1st, 1885. The statements contained in the annual reports of Mr. Wynter Blyth and of Queen Charlotte's Hospital appear so different from the statement made by Dr. Priestley on the authority of Dr. Grigg, that some explanation is desirable.—I am, Sir, yours faithfully,

Harley-street, W., July 25th, 1885. WM. A. DUNCAN, M.D.

LIVERPOOL.

(From our own Correspondent.)

A THREATENED WATER FAMINE.

LIVERPOOL has been seriously threatened with a water famine, the supply having fallen to a lower amount than has been known for a number of years. The authorities have therefore wisely decided to place the inhabitants upon half service, the mains being turned off between 5 and 7 each evening till the same hours of the following morning. It is much to be lamented that there is no means here of saving and therefore preventing the enormous waste of rain-water, which might well be used for all but drinking purposes. Under present arrangements a considerable amount of water must be used for flushing out water-

closets, trough-closets, &c.; and it seems hard that the pure water brought from distant parts at an enormous cost should be largely used for merely flushing sewers. Possibly a double service may be found feasible some day, of rain-water for closets, washing, &c., and of pure drinking-water for its own legitimate uses.

A NOVEL USE FOR THE HORSE AMBULANCE.

The authorities of the Northern Hospital have already obtained considerable credit by means of the horse ambulance established in connexion with their hospital. By its means a large number of patients suffering from severe injuries have been conveyed to hospital quickly, efficiently, and with as much comfort as was possible under the circumstances. Latterly the happy idea was conceived of using the ambulance for conveying such of the occupants of the children's wards as were capable of being removed to the landing-stage, which is within a few minutes' drive of the hospital. Here the little patients enjoyed some good sea air, much to their benefit, and returned to the hospital in the same conveyance. This happy idea seems to be well worthy of repetition.

CASE OF STRYCHNINE POISONING.

Another case illustrating the ease with which deadly poisons can be obtained was the subject of an adjourned inquest before the city coroner on July 23rd. The deceased was a single young woman, seventeen years of age, who had unfortunately become pregnant. She first procured medicine and pills from a chemist, from whom she subsequently purchased on two occasions a threepenny packet of Hunter's vermin-killer for the alleged purpose of killing rats, with which she stated the house swarmed. She was duly supplied with the poison, the legal formalities having been complied with. Late in the evening of the day of the purchase (July 6th) she was heard calling out for her brother, and was found by Dr. Dale in strong convulsions, dying in five minutes after his arrival. A post-mortem examination was made subsequently by Mr. F. W. Lowndes in Dr. Dale's presence, the result showing that the deceased was four months pregnant, that there was no evidence of death being due to natural causes, and that the post-mortem appearances confirmed the suspicion which the symptoms pointed to—viz., that death had been caused by strychnine poisoning. A cup which Dr. Dale found in the room had a blue stain, and on examination gave the bitter taste characteristic of strychnine, as well as positive results by the colour tests. A small quantity of strychnine was found in the stomach. A powder similar to that purchased by the deceased was procured, and found to contain 1·3 gr. of strychnine with starch and ultramarine, this latter accounting for the blue stain found in the cup. The jury returned an open verdict.

THE CRIMINAL LAW AMENDMENT BILL AND THE BETTER PROTECTION OF WOMEN AND CHILDREN.

In accordance with a resolution numerously and influentially signed, the Mayor (Mr. David Radcliffe) convened a public meeting of the inhabitants of the city, which was held in the Council-chamber of the Town-hall on July 24th. There was a very large attendance, the proceedings excited great interest, and there was apparently a very strong feeling that the ages in the felony and misdemeanour clauses should be raised to fourteen and eighteen respectively; also that the Act so amended should be passed this session. A considerable number of the members of the medical profession signed the requisition to the Mayor and attended the meeting, thus tacitly showing that on medical grounds they approved of the proposed amendments. The following resolutions were all carried unanimously:—1. "That this meeting, deeply impressed with the urgent necessity of affording increased legal protection to women and girls in circumstances of youth and inexperience, and having before them the provisions of a Bill now before Parliament, entitled the Criminal Law Amendment Bill, resolves that it is of primary importance that the said Bill be passed into law in the present session." 2. "That this meeting, while approving generally of the Bill and the objects sought by it, is strongly of opinion that it should be amended in committee by fixing the age of protection to girls in Clause 4 at not less than fourteen, and in Clause 5 at not less than sixteen; and also that Clause 6, which sanctions a search warrant being granted in certain cases, should also provide that the parent, guardian, or other person should be authorised to accompany the warrant officer." 3. "That a petition to both Houses of Parliament embodying the foregoing resolutions be now adopted."

THE WEATHER AND THE HEALTH OF LIVERPOOL.

For some days past the heat has been intense, causing much distress to all who have to be out in the sun for any length of time and are compelled to wear a uniform the reverse of cool, such as is the attire of policemen, railway servants, and ferrymen. It is satisfactory, however, to notice that there have been few cases of sunstroke reported, and that the rate of mortality has been as low as 22 per 1000.

Liverpool, July 28th.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

UNIVERSITY OF DURHAM.

THE first examination of candidates under the new regulations took place last week in Newcastle. The regulations correspond in character to what is required by the conjoint examinations of the Royal Colleges of Physicians and Surgeons, but in the case here lead up to the degree of M.B. I understand that between thirty and forty candidates presented themselves. The Charity Commissioners have ratified the grant of our corporation of the required portion of land necessary for the erection of a new medical college, at the price of £10,000. It is likely that a physical science college will be conjoined with the new building, and steps are being taken to expedite the matter.

DEATH FROM CHLOROFORM.

An inquest was held on July 24th upon a female patient aged fifty-seven, who had died on the previous evening at the Northallerton Hospital while undergoing an operation under chloroform. The medical evidence went to show that the deceased was having an external tumour removed, and had only inhaled ninety drops of chloroform, when she suddenly sat up in bed, became convulsed, and fell back unconscious. Efforts for recovery were made, and artificial respiration was kept up for an hour and a half without avail. The evidence further showed that breathing went on for about twenty minutes, but no pulsation of the heart could be felt. It was also shown that as some suspicion of fatty heart was entertained the chloroform was administered with great care. A verdict was given to the effect that deceased "died accidentally by the action of the anæsthetic upon a fatty heart."

A NEW NORTHERN HEALTH RESORT.

It appears that we are about to have a new health resort established in Yorkshire, in Newton Dale, where the "Monte Dore" system is to be carried out without the disadvantage of having to undertake a long journey—in winter especially—to the Auvergne. Newton Dale has many natural advantages, including an abundant supply of the purest water flowing continually from the rocks, together with a valuable mineral spring. The Dale is conveniently situated as regards Whitby, Scarborough, &c., and our larger northern towns. The Newton Dale "Monte Dore" is under the auspices of many of our leading physicians and surgeons.

DR. MEARS' LIFE-RAFT.

Dr. Mears and Mr. Linkleter of Tynemouth have invented and patented a new life-raft of ingenious construction, and they have lately built one on the same principle on a large scale, with improvements likely, it is said, to increase its sea-going qualities. It has undergone many tests, and has proved at all events to be a fast sailor. The raft has twin keels with an open middle. Dr. Mears and Mr. Linkleter are about to make a prolonged cruise in their strange-looking craft. Starting from Tynemouth, they will proceed along the coast southward as far as the English Channel and cross over to Calais. The crew of the raft during the passage to France is to consist of several gentlemen. It is to be hoped that the Doctor and his companions may have a pleasant and safe voyage. Some years ago a very ingenious life-raft was exhibited in our art gallery here, the invention, I believe, of a military man. It attracted a good deal of attention, but I am not aware that it ever saved a life

I heard an experienced seaman say that it was "a very good raft for a landsman to invent." If Dr. Mears and his companions would test the raft, say, between Holyhead and Kingstown, or in the narrower channel from Stranraer to Larne, especially with a N.W. wind blowing, the experiment would probably be regarded as more satisfactory, as nautical men tell us that nothing can be more fallacious than to test life-saving apparatus in fine weather and smooth water.

Newcastle-on-Tyne, July 29th.

EDINBURGH.

(From our own Correspondent.)

CLOSE OF THE SUMMER SESSION.

THE University classes met for the last time this session on the 24th inst., when the results of the class competitions were announced, and University medals conferred on the leading successful candidates in the various classes.

PRESENTATION TO PROFESSOR COSSAR EWART.

At the close of the class of natural history Professor Ewart was presented by his students with a handsome pair of silver candelabra, accompanied by the congratulations and good wishes of his class upon his approaching marriage. The presentation was made by a member of the class, who delivered a short and appropriate speech. In acknowledging the honour which had been done him, Professor Ewart referred to the present position of the University as a centre for medical training, and urged strongly that such an institution should be characterised by the production of good original work, as well as by the excellence of its didactic arrangements. In this respect, he said, he had still to win his spurs; but even a critical hearer would scarcely value Professor Ewart's scientific achievements at his own modest estimate, for his observations and experiments on pisciculture are widely known, and are not less in scientific interest than they are in economic importance. His report to the Scottish Fishery Board on "Fish Culture in America" is full of interesting information and valuable suggestions. He has been commissioned by the Board to visit during the present season some of the countries of Northern Europe where the fishing industries are specially developed, and to suggest further alterations and improvements which the Board might carry out in the districts under its jurisdiction. In making this arrangement the Board has shown that it is thoroughly alive to the national importance of conserving the interests of which it is the guardian, by providing for the accumulation of facts which may form the basis of future beneficial legislation; and it is fortunate in obtaining a man of Professor Ewart's training and energy to carry out its objects in these respects.

DR. THOMAS KEITH.

Dr. Keith, the well-known ovariotomist, has just returned from a short visit to America, whither he had been summoned to give his opinion upon a serious case. This is said to be the first instance, since the Declaration of Independence, of America having summoned medical aid from the old country.

THE FINAL M.B. EDIN. EXAMINATION.

A letter has appeared in the *Scotsman* from the pen of one of the successful candidates in the recent final examination, complaining that the present system of conducting the examination is such as to give an undue advantage to students attending purely University courses of lectures, and thus places almost insurmountable difficulties in the way of successful extra-academical teaching. To illustrate this, one of the papers given at the recent examination is cited, and after each of the questions has been severally dealt with, the conclusion is arrived at, that three-fourths of the questions test merely the candidates' acquaintance with the lectures or written works of the examiners in question, and are in no way tests of a good general acquaintance with the subject upon which the examination is conducted. If this complaint is countenanced by facts, the grievance of extramural teachers is a real one, and the matter is one where reform is urgently called for: it would appear, however, that the examiners themselves have not interpreted their questions on the narrow lines which the complainant has pictured to himself, since candidates who had none of the supposed advantages to which he refers have passed with as much credit as those who enjoyed them. In the circumstances, it is perhaps fortunate that the commissioners from the General Medical Council were present at the examination this year, and could form an independent judgment both of the written and oral examinations; since, if the present complaint is well founded, the facts connected with it can scarcely have escaped their notice, in which case more will certainly be heard of the needed reform. If, on the contrary, they are satisfied as to the fairness of the examination, this complaint need scarcely have been made. However this may be, it is to be regretted that the complaint has been made before a tribunal which is not prepared in any sense to adjudicate on the matter. If reforms are needed in our profession, we hold the necessary power to achieve them within the profession, and an appeal to public opinion on such matters can do no good, and does not tend to conserve the dignity of the profession. Nor has the credit of his *alma mater* been in any way augmented by the complaint which a scarcely-fledged *alumnus* has thought it right to publish. It is well that this complaint should be made, that the matter may be thoroughly sifted, and academic morality vindicated at whatever cost; but it would have been equally effectual, and in much better taste, had it been made only through the columns of a medical paper.

Edinburgh, July 28th, 1885.

BELFAST.

(From our own Correspondent.)

HIGH DEATH-RATE IN BELFAST.

I REGRET to have to report that the quarterly summary of the Registrar-General's weekly returns, just issued, indicates that the health of Belfast is not in a satisfactory condition. During the quarter ended July 4th the death-rate in Belfast has been higher than in any other of the sixteen districts. In these districts the average annual death-rate represented by the deaths registered was 29·2 per 1000. In Belfast it was 35·5. Dublin comes next to Belfast with 29·0, and Cork is next with 28·5. Drogheda, Waterford, Newry, Limerick, Wexford, Kilkenny, Dundalk, Londonderry, Lurgan, Armagh, Lisburn, Galway, and Sligo all follow, the rate diminishing in each district, until in Sligo it reaches its lowest point at 17·0. During this quarter the total deaths registered in Belfast were 1947, while the births were 1984. The exceptionally high death-rate of Belfast has been due to a very severe epidemic of measles, of which during this quarter there were 442 deaths registered. Whooping-cough, which has also been prevailing in Belfast, caused during the same period 41 deaths, being 13 more than the number for the same disease in the previous quarter.

THE BELFAST HOSPITAL FOR SKIN DISEASES.

From the report presented at the annual meeting of this excellent charity last week we gather that 1022 patients were treated during the past year, and of these thirty-six of the most severe cases were admitted into the hospital. Since the establishment of the charity in 1865, 18,313 patients have received treatment. In autumn of last year the whole of the interior of the hospital was painted, the expense having been borne by Miss Benn, a member of a family who have contributed largely to the Belfast charities. It is a matter for sincere regret that the subscriptions again show a falling off; notwithstanding this, however, the year is closed with a slight balance in the treasurer's hands, although a sum of close on £40 has had to be expended in completing Glemanel-street, in which the hospital is situated.

THE BELFAST DISTRICT LUNATIC ASYLUM.

Dr. Merrick, the resident medical superintendent of this asylum, has just issued the fifty-fifth annual report, from which we gather that during the past year, 1884, there were 703 persons under treatment. The average number daily resident during the year was 527, being an increase of 18 over that of 1883. During last year 139 cases were discharged —5 as unimproved, 53 as improved, and 81 as recovered; 28 deaths occurred. The asylum has been free during the same period from contagious or infectious disease. The expenditure for the year amounted to £12,740 9*s.* 5*d.*, giving a capitation cost of £24 3*s.* 6*d.*, and is an increase of 6*s.* 11¾*d.* per head on that of last year. As the students of the Royal University before graduation must present a certificate of having

attended a course of clinical lectures on mental diseases, the students of Queen's College, Belfast, avail themselves of the admirable opportunities afforded at the asylum, where Dr. Merrick has a very interesting and practical clinic.

ROYAL COLLEGE OF PHYSICIANS.

AN ordinary meeting of the Comitia was held on Thursday last, at 5 P.M., the President, Sir Wm. Jenner, in the chair. The Registrar feelingly referred to the recent death of Dr. Shepherd, the secretary of the Fellows' Club, and who was largely instrumental in securing the success of the last conversazione at the College.

After the admission of members and the granting of licences, communications were read from the General Medical Council, the Medical Board of the Hospital for Sick Children, Dublin, and one from the University of Edinburgh, notifying that Joseph Griffiths (University of Edinburgh) had been elected Murchison Scholar, and that Sydney Plowman (St. Thomas's Hospital) was placed *proxime accessit*.

The following report of the Committee of Delegates appointed by the Royal Colleges of Physicians and Surgeons of England to confer as to what steps, if any, can be taken to enable the two Colleges to obtain the legal right of giving the title of "Doctor," was received and ordered to be entered on the Minutes. Its consideration was deferred to a special meeting in October.

"The Committee have to report that they have fully considered the question referred to them, viz.—the advisability and practicability of granting the title of Doctor to persons who have obtained the diplomas of the two Colleges. They have also considered the memorial, signed by more than 600 teachers, practitioners, and students in medicine, and referred to them, advocating the amalgamation of the two Colleges into one Royal College of Medicine, for the purpose of granting degrees in Medicine and Surgery. After careful deliberation the Committee have unanimously agreed to the following resolutions as expressive of their opinion on the subject:—1. That it is desirable that persons examined by the Royal College of Physicians of London and the Royal College of Surgeons of England conjointly, and found duly qualified, should, in virtue of that examination, have a degree in Medicine and Surgery conferred upon them. 2. That the curriculum of study and the examinations to be undergone for the licence of the Royal College of Physicians of London and the diploma of the Royal College of Surgeons of England are equal to those required by most of the universities for degrees in Medicine and Surgery. In conclusion, the Committee are of opinion that, should the two Colleges approve the foregoing resolutions, means could be found for giving effect to them."

The Baly Medal was awarded to Professor W. Kitchen Parker, F.R.S., on the nomination of the Council.

The Building Committee of the two Colleges presented a report proposing the erection of a building for examination purposes on the Thames Embankment, at a joint cost of £30,000. Authority was given to the Building Committee to carry out the proposed plan, including the necessary legal arrangements, and to affix the College seal to the legal agreements approved by the solicitors of the two Colleges. The plans and drawings will be on view for criticism and suggestions by the Fellows during the next week. The opinion of counsel on the Croonian Trust was presented, to the effect that a more detailed scheme than that suggested by the Committee would be necessary, and that it would have to be laid before the Charity Commissioners or the High Court of Chancery; and the Committee were desired to reconsider the subject, and draw up a detailed scheme, to be laid before the Fellows at their next meeting. The annual reports of the Library and Museum Committees and the quarterly report of the Finance Committee, showing a considerable balance in favour of the College, were then read.

The following officers were elected:—Censors: Drs. Habershon, W. H. Stone, J. E. Pollock, and W. H. Dickinson. Treasurer: Dr. Dyce Duckworth. Registrar: Sir Henry Pitman. Harveian Librarian: Dr. W Munk. Assistant Registrar: Dr. Allchin. Curators of the Museum: Drs. Wegg, Lionel Beale, Bastian, and Curnow. Finance Committee: Drs. Hare, William Wood, and Edward Liveing. Examiners in Chemistry and Chemical Physics: Mr. C. W. Heaton, Dr. Thomas Stevenson, Dr. Bernays, Dr. W. J. Russell, and Mr. William Foster. Examiners in Materia Medica, Medical Botany, and Pharmacy: Drs. Brunton, Mitchell Bruce. Frederick Taylor, William Murrell, and D. B. Lees. Examiners in Elementary Physiology: Drs. William Ewart and V. D. Harris. Examiners in Physiology: Drs. John Harley, Leonard Wooldridge, and Schäfer. Examiners in Osteology and Anatomy: Drs. Carrington and Jas. Anderson, and Mr. Henry Morris. Examiners in Medical Anatomy and Principles and Practice of Medicine: Drs. Lionel Beale, Sturges, Sutton, Church, Cheadle, Pye-Smith, Green, Bastian, Cayley, and Whipham. Examiners in Midwifery and Diseases Peculiar to Women: Drs. Gervis, John Williams, and James Watt Black. Examiners in Surgical Anatomy and Principles and Practice of Surgery: Messrs. George Pollock, John Couper, and Marcus Beck.

THE SERVICES.

WAR OFFICE.—Army Medical Staff: The following Surgeons-Major are granted retired pay, with the honorary rank of Brigade Surgeon:—James Parr and Richard Tobin.

INDIA OFFICE.—The undermentioned officer has been granted a step of honorary rank on retirment:—Brigade-Surgeon Edmund Eyre Lloyd, of the Madras Establishment, to be Deputy Surgeon-General.

ADMIRALTY.—The following appointment has been made:—Staff Surgeon Charles William Magrane, to the *Caryefort*.

ARTILLERY VOLUNTEERS.—2nd Middlesex: C. Davidson, Gent., M.D., to be Acting Surgeon.

RIFLE VOLUNTEERS.—2nd Devonshire (Prince of Wales's): Surgeon John Henry Square May is granted the honorary rank of Surgeon-Major.—12th Middlesex (Civil Service): Surgeon and Honorary Surgeon-Major Henry Spencer Smith resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the corps on his retirement.

MEDICAL NOTES IN PARLIAMENT.

Housing of the Working Classes (England) Bill.

In the House of Lords, on the 24th ult., on the motion of the Marquis of Salisbury, the Bill relating to the Housing of the Working Classes (England) was read a third time, several amendments, chiefly of a verbal character, being made. The Commissioners of Sewers were substituted for the Metropolitan Board as the authority within the City of London.

In the House of Commons, on the same day, the Bill was read a first time, and the second reading fixed for the 31st ult.

The Lunacy Laws.

In reply to the Earl of Milltown, the Lord Chancellor stated that it was the intention of Her Majesty's Government to introduce next session a Bill for the amendment of the Lunacy Laws.

In the House of Commons, on the 28th ult., the Lunacy Acts Amendment Bill passed through Committee without amendment, and was read a third time.

The Cholera Hospitals (Ireland) Bill.

The Marquis of Waterford, in moving that the House do resolve itself into Committee on the Cholera Hospitals (Ireland) Bill, said that this was an annual measure, and only came into operation in the event of a virulent attack of Asiatic cholera. Under its provisions no hospital was to be erected within 300 yards of a dwelling-house, and when the hospital was removed the land was to be restored to its original state.—The Earl of Milltown suggested that the Act should be made a perpetual instead of an annual one; but the Bill was eventually passed through Committee without amendment.—On the 28th ult. this Bill was read a third time.

The Medical Relief Disqualification Removal Bill.

In the House of Commons, on the 24th ult., the Medical Relief Disqualification Bill was read a third time, on the motion of Mr. J. Collings.

In the House of Lords, on the 27th ult., the Bill was brought up from the Commons, and read a first time. On the 28th ult. the Bill was read a second time, after a lengthy and

animated debate, in which Lord Balfour of Burleigh, Earl Granville, Earl Fortescue, the Marquis of Salisbury, Lord Bramwell, and others took part.

Cork Lunatic Asylum.

On the 24th ult. Mr. Deasy called attention to the repeated refusals of the late Viceroy of Ireland to appoint Mr. John O'Brien, Town Councillor of Cork, a governor of the Cork Lunatic Asylum. The hon. member alleged that gross irregularities had existed in connexion with contracts for supplying the Cork District Lunatic Asylum, and that the governors of the institution had been extremely lax in the discharge of their duties. He maintained that the representation of the Cork Municipal Council on the managing board of the District Asylum should be better proportioned to its contribution towards the cost of the maintenance of the asylum. He hoped that the Government would promise to consider this matter; otherwise he would be obliged to bring it before the House at considerable length during the present session.

The Appointment of Irish Medical Officers.

In answer to Mr. T. D. Sullivan, Sir W. Hart-Dyke stated that there is no rule on the subject of the appointment of Irish medical officers, but it often happens that the dispensary doctor is the most suitable candidate for appointment as medical officer to the constabulary, and when this is so he is appointed. The Inspector-General cannot decide what course to adopt in the case of Castlepollard and Coole districts, as no appointment has yet been made to the dispensaries there.

Army Estimates.

On the vote for salaries and miscellaneous charges of the War Office, Sir A. Hayter said that Major-General Fremantle, who commanded at Suakin, and afterwards commanded the Guards Brigade in the campaign, had supplied him with the following testimony:—"So far as my observation and knowledge go, the hospital arrangements for the campaign in the eastern Soudan were very good. I speak as regards the field hospitals, the bearer companies, the base hospital, and the ship *Ganges;* the latter was the admiration of all who saw her. The arrangements for the quick transfer of sick and wounded from the front to the base and ship seemed to me to be excellent." In connexion with this subject he desired to quote the following suggestion from Surgeon-Major Evatt:—"I want to see a regular Militia Hospital Corps called out annually, and trained with us in the hospitals, instead of being kept at infantry drill in the barracks. We need such a body of men to work our home hospitals in war time, as well as to furnish the coarser aid in the war hospitals." In the vote provision was made for four bearer companies.

Smoke Abatement.

On Thursday, in the House of Lords, Lord Stratheden and Campbell moved the second reading of the Smoke Nuisance Abatement (Metropolis) Bill, and Earl Beauchamp assented to the motion on the understanding that the Bill would not be pressed further. The Bill was on this understanding read a second time.

Fruit Imports and Cholera.

On Thursday, in the House of Commons, Mr. Labouchere asked the President of the Local Government Board whether any precautions would be taken in view of the ravages of cholera in Spain, and of the fact that there are large imports of fruit from that country during the latter end of August and in September which are packed in sawdust.—Mr. A. J. Balfour, President of the Local Government, replied: English ports that are in frequent communication with Spain have received much recent attention from the Board's Medical Department. Hitherto we have no experience of cholera ever having been conveyed in the manner suggested; but if indications of its possible transport by such means should be observed, the Board will not fail to convey to local sanitary authorities such cautions as may be requisite.

ON July 27th an inquest was held at Shrewsbury on the body of Dr. Gillitlie, Pontesbury, who, whilst returning from attending a patient suffering from sunstroke, was overcome by the intense heat, and fell from his horse. In the fall the neck was dislocated, and he died after a few hours from the effects of the accident. A verdict to that effect was returned.

Obituary.

GEORGE FORTESCUE, M.B.LOND.

AUSTRALIAN papers bring us news of the untimely death of this gentleman, who was cut off at Sydney, by typhoid fever, on June 1st. Mr. Fortescue was the son of a captain in the Royal Navy, who after his retirement from the service settled in Tasmania. The son inherited a most commanding figure and muscular development of an unusual kind. Mr. Fortescue was born in Falmouth, Cornwall in 1838, and in his infancy was taken to Tasmania. In 1855 he came to England for his medical education; and whilst attending his course of study at King's College resided with Mr. J. G. French of Great Marlborough-street, at that time surgeon to St. James's parish infirmary. He was a conspicuous figure amongst the students of his time for his great physical strength, in which he rejoiced like a young giant, as he was; for this, when combined, as it was in him, with intellectual power and application beyond the average, is always attractive to youth. He was intensely fond of athletics, and performed feats which sometimes terrified the lookers-on. We remember him on one occasion, whilst King's College Hospital was in process of building, going from the ground to the top of a long ladder, hand over hand, behind it, his legs dangling in the air. At rowing, cricketing, and as a Rifle Volunteer he was an adept. In the early days of the Volunteers the London roughs were apt to be very troublesome, and now and then a sharp conflict would take place when "ground" had to be kept. It happened once that Fortescue lost patience under the provocations of a man who time after time broke through the line and defied the sentry's warnings. Worn out at last, he hastily handed his rifle to a friend, and taking the man up by the collar and seat of his trousers, lifted him off the ground and literally hurled him out of the enclosure. The man did not return. Fortescue's ability was so good that full attention to physical exercises did not appear to interfere materially with his more strictly professional development. He took the London M.B.—in itself a distinction in those days—with singular ease in 1861, as early as it was possible for him to go up, and his name might easily have appeared in the scanty honours list if he had not allowed his energies to be diverted into other channels.

Mr. Fortescue landed in Sydney in 1862, rapidly acquired an extensive practice, and has almost ever since been attached to one or other of the hospitals. "An accomplished surgeon and thorough man of the world, he was possessed of gifts that in the long and arduous exercise of a profession to which he was entirely devoted, gave him an Australasian fame and popularity; but the esteem in which he was held by thousands of patients, and better still by his medical brethren, had its foundation as much in the attributes of his big heart as in the uncommon powers of his clear intellect and expert hand." Thus writes one of the Sydney papers, and those who knew Mr. Fortescue in England will see that his career sustained the promise of his youth. "It is no exaggeration to say," writes another paper, "that the community has suffered a loss in the death of Mr. Fortescue which can hardly be repaired. Without being a prominent public man, he had a wide influence, even outside his own large circle of friends. He followed public affairs very closely, and had an unswerving belief in the political future of Australia. Although educated in England, he was attracted back to Australia by the feeling, which was the strongest in him through all his life, of the immense possibilities before his countrymen, and he never ceased to exert his influence to encourage a fuller development of national life." His death was the occasion of a profound feeling in the colony, and we doubt not there are many of our readers who knew him, as the writer did, in the old student days, who will hear with regret that a greater barrier than the ocean now separates them from one who, though he had left this country for twenty-three years, was always remembered with a kindly interest. Mr. Fortescue leaves a widow, but no children.

DR. R. W. FELKIN, late medical resident at the Court of King M'tesa, on Lake Victoria, Nyanza, delivered a lecture on July 27th, at Manchester, in which in glowing colours were described the horrors of the slave trade.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen have been admitted Members:—

Anderson, John, M.D. St. And., Gloucester-place.
Fox, Richard Hingston, M.D. Brussels, Finsbury-circus.
Halliburton, William Dobinson, M.D. Lond., Gower-street.
Shadwell, Arthur, M.B. Oxon., Brighton.
Thomson, St. Clair, M.B. Lond., Gloster-walk.
Woolridge, Leonard Charles, M.B. Lond., Guy's Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on July 23rd:—

Adcock, Harry, L.K.Q.C.P.I., Liverpool.
Angier, Thomas Matthews, L.S.A., Bootle.
Brentnall, Frederick, L.K.Q.C.P.I., Manchester.
Bowman, Reginald, M.B. Edin., Edinburgh.
Bowman, Henry Claxton, L.S.A., Woodley, near Stockport.
Clarke, John Michell, M.B. Cantab., Bristol.
Collinson, Frederick William, M.B. Edin., Edinburgh.
Crowther, John Woodward, L.S.A., West Bromwich.
Gibson, John Lockhart, M.B. Edin., Brisbane, Queensland.
Hughes, Alfred William, M.B. Edin., Corris, North Wales.
Lamont, John Charles, M.B. Edin., Edinburgh.
Lees, Edwin Leonard, M.B. Edin., Bristol.
Lightford, Charles Louis, M.B. Edin., Newcastle-on-Tyne.
Parker, George, M.B. Cantab., Cambridge.
Porter, William Ernest, M.B. Edin., Goole, Yorks.
Proud, Frederick, M.B. Durham, Bishop Auckland.
Reece, Richard James, L.S.A., Edwards-place.
Roberton, Ernest, M.B. Edin., Auckland, New Zealand.
Shackleton, Herbert, L.K.Q.C.P.I., Bradford.
Thomson, Henry Alexis, M.B. Edin., Edinburgh.
Warnock, John, M.B. Edin., Melbourne, Victoria.

Admitted on July 24th:—

Achard, Alexander Louis, L.S.A., Brixton Rise.
Bronner, Adolf., M.D. Heidelberg, Gower-street.
Buss, Howard Decimus, L.S.A., Southall-park.
Clarke, John St. Leger, L.K.Q.C.P.I., Dublin.
Cones, John Archibald, L.S.A., Powys-square.
Fitch, Charles Dennis, L.S.A., Kidderminster.
McLachlan, John, M.B. Edin., Edinburgh.
Stephen, William Henry George, M.B. Edin., Edinburgh.
Sykes, Thomas Hindle, L.R.C.P. Lond., Southport.
Thompson, Stephen Robert, Dulwich.

Admitted on July 27th:—

Bigger, William Grimshaw, L.S.A., Londonderry.
Brockatt, Andrew Alexander, L.R.C.P. Lond., Denmark-hill.
Buxton, Edward, L.R.C.P. Edin., Liverpool.
Jarvis, John, L.R.C.P. Lond., Bury St. Edmunds.
Kauffmann, Otto Jackson, L.S.A., Manchester.
Oliver, John, L.R.C.P. Lond., East Dulwich.
Rushbrooke, Thomas, L.S.A., Ampthill.
Schofield, Gerald, L.R.C.P. Lond., Beckenham.
Smith, Samuel Gordon, L.S.A., Richmond-road.
Whiteley, Daniel Flockton, L.R.C.P. Lond., Wakefield.
White, John Hall, L.R.C.P. Edin., Stratford, Manchester.

Admitted on July 28th:—

Blakemore, Benjamin, L.K.Q.C.P.I., Tyldesley, near Manchester.
Brown, Lewis, L.S.A., Bolton.
Dobson, Leonard Charles Talbot, L.S.A., Ealing.
Grant, James Edward Roney, L.K.Q.C.P.I., Harrow-road.
Lees, William, L.S.A., Ealing.
Luckham, Levi Stephenson, L.S.A., Studland, Dorset.
Moore, William Glover, L.R.C.P. Edin., Liverpool.
Saville, Henry William Brooks, Radcliffe.
Wingrave, Thomas, L.S.A., Hemel Hempstead.
Winship, William Algernon, L.S.A., Newcastle-on-Tyne.

Admitted on July 29th:—

Burton, Frederick William, L.R.C.P. Lond., Weybridge.
Clarkson, Frank Cecil, L.R.C.P. Lond., Surbiton.
Du Buisson, Edward Wm., L.R.C.P. Lond., Newstead, Hereford.
Gell, Henry Willingham, Buxted, Sussex.
Hickey, Evan Lewis, L.S.A., King's-road, Chelsea.
Hore, H. St. George Standish, L.R.C.P. Lond., Dulwich-common.
Jones, Thomas Slater, Bangor.
Moore, Walter H. Bernard, L.R.C.P. Lond., Straits Settlements.
Saw, Francis Albert, M.B. Durh., Maize-hill.
Smith, John, M.B. Edin., Hackney.
Taylor, Charles Henry, L.S.A., Newport Pagnell.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At examinations recently held the following passed the Second and Third Professional Examinations for Letters Testimonial of the College:—

SECOND PROFESSIONAL EXAMINATION.—John Abbott, Benjamin Beamish, Alfred Bewley, Charles Boyce, Edward Brabazon, John Byrne, Joseph Casey, Thomas Corvar, Stafford Cox, William Cremin, James Crumley, Roland Delaney, Edward Frazer, William Frizell, Eugene Glynn, Wm. Gore, Wm. Graves, John Hamilton, Francis Henry Hill, John Greene, Henry Hayes, Richard Hewitt, Charles Hughes, Richard Hunt, George Johnston, Victor Ludlow, Charles Lyons, Daniel Magners, John Mulqueen, James Martin, Henry McDermott, John Meek, John McNaboe, Denis Murphy, James O'Connor, Eugene Pentony, Michael Shanley, Thomas Shehan, Laurence Skelly, John Spearing, Arthur Sproulle, John Stewart, James Swan, Wm. Taylor, Timothy Teahan, James Trant, Wilfred Wynn.

THIRD PROFESSIONAL EXAMINATION.—Thomas Barton, Patrick Bolger, Austin Cluterbuck, Thomas Connellan, Edward Corcoran, William Dick, Michael O'Geary, Thomas Goodman, Bartley Hopkins, Richard Hugo, Edward Jacob, John Langan, Sinclair Long, Henry Mathews, Jeremiah Nally, F. O'Donohoe, Denis O'Loughlin, Richard Penefather, Everard Power, Francis Reid, Wm. Ross, Wm. Scott, T. Strangman, Thomas Williams, Thomas Wilson, Chas. Woodwright, William Woodwright, Edward Yates, Philip McDermott, John W. O'Brien.

SOCIETY OF APOTHECARIES.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on July 23rd:—

Archard, Alex. Louis, M.R.C.S., Bonham-road, Brixton-rise.
Exton, Hugh, Bloemfontein, South Africa.

On the same day the following gentlemen passed their examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise:—

Cavell, Herbert Bertram, Brook-street, Grosvenor-square.
Owen, Arthur Deaker, Dart View, Totnes.
Sloman, Frederick, Farnham.
Radmore, George Richard, Tonsley-hill, Wandsworth.

DR. VINTRAS, of the French Hospital in London, has been appointed an officer of the Legion of Honour.

IT is stated that the late Mr. John Whitmore has left £3000 to the Guest Hospital, Dudley.

THE appeal brought by the Belfast Town Council against the decision of the county court judge who awarded Dr. Corry damages for injuries done to his house by exhalations of sulphurated hydrogen gas from the corporation gas Works has been dismissed by Mr. Justice O'Brien.

A LUNG FOR NORTH LAMBETH.—At a meeting of the Lambeth vestry on July 23rd, a letter was received from the authorities of St. Thomas's Hospital, stating that the governors had confirmed the proposed arrangement with the vestry for the occupation of the ground in Palace-road.

AT the recently held annual meeting of the supporters of the Princess Frederica Convalescent Home it was stated that during the past year ninety-two patients had been admitted, being thirty-three more than in 1883, the six beds being full throughout the whole year. The total receipts for the twelve months amounted to £644.

PRESENTATIONS.—A deputation of Metropolitan School Board teachers recently presented Dr. Broman with an illuminated address in recognition of his kindness in having practically taught the teachers the system of Swedish drill.—Dr. F. X. Mac Cabe, late an inspector of the Local Government Board, Ireland, has been presented with an address and a handsome piece of plate by the Poor-law medical officers of Ireland.

AT the invitation of the late Ambassador of the United States, Mr. J. Russell Lowell, the Committee of the Howard Association prepared a paper on Charities and Prisons, which was read at the recent National Conference at St. Louis. In it attention was called to the urgency of *dealing with the appalling number of murders committed annually in America.*

SOCIAL SCIENCE ASSOCIATION.—The annual meeting of the members of this Association was held on the 22nd ult., when a report from the Council detailing the action taken by the Association during the past year was presented. A proposal to add a further department for the discussion of temperance subjects is under consideration. For the first time in the history of the Association it has been considered prudent this year to forego the preparations for a provincial meeting. It is proposed, however, that in lieu of a congress a two days' conference on temperance legislation shall be held in London in the month of January, all the expenses in connexion therewith being raised by a special fund. Dr. Norman Chevers, who was last year President of the Health Department, has been chosen to occupy the same office for the current year.

THE DENTAL HOSPITAL.—Sir Risdon Bennett on July 24th distributed the prizes to the successful students at the Dental Hospital of London, Leicester-square. Mr. Morton Smale (the dean), after welcoming the chairman and visitors, made his report for the year. There had been thirty new entries during the year and a daily attendance of over forty pupils, which rendered the present accommodation inadequate to the demand. Eighteen students had presented themselves for examination at the Royal College of Surgeons,

and sixteen had been successful. Six had passed the Primary M.R.C.S., one the Primary F.R.C.S, and one the Final F.R.C.S. The following awards were made:—Saunders Scholarship, Mr. C. F. Rilot. Ash's Prize, Mr. W. J. England. Metallurgy (Prizes): 1st, Mr. W. J. England; 2nd, Mr. L. E. Sexton. Mechanical Dentistry (Prizes): 1st, Mr. C. F. Rilot; 2nd, Mr. F. M. Ladbrook. Dental Anatomy (Prizes): 1st, Mr. C. Campion; 2nd, Mr. C. F. Rilot. Dental Surgery and Pathology (Prizes): 1st, Mr. C. F. Rilot; 2nd, C. O. Whittaker. Operating Prizes: 1st, Mr. C. R. Smith; 2nd, Mr. L. Jeffrey.

SIR GEORGE BOWLES HOSPITAL, BUTLEIGH, SOMERSET.—The first report of this hospital has just been issued. There have been admitted eighteen men, fourteen women, five children—total thirty-seven; of whom thirty-two have either been cured or greatly relieved. The sum of £16 17*s.* 11*d.* has been received with the patients, chiefly from their employers and friends. Not a single patient has been refused through inability to pay toward their expenses. The receipts during the year were £452 15*s.* 4*d.*; the expenditure amounted to £522 8*s.* 8*d.*; leaving a balance due to the treasurer of £69 13*s.* 4*d.*

HOSPITAL SATURDAY FUND.—The Board of Delegates of this Fund met on July 27th, when the secretary reported that the ladies' street collection, which took place on the preceding Saturday, realised a gross total of £4200, as against £2800 obtained on Hospital Saturday last year, when the collection was, in its turn, considerably more than in previous years. The experiment which was made this year of having the street collection some seven weeks earlier than usual had in its results far exceeded the most sanguine expectations of the advocates of the change. There was, in fact, an advance of 50 per cent in the receipts, and if the workshop collections, which were due and payable on the first Saturday in September as hitherto, showed a corresponding increase, £16,000 might altogether be realised. The advantage of an earlier day for the street collection was mainly manifested at the western and more fashionable parts of the metropolis; the contents of some of the City and East-end boxes were below the average. On the whole, however, there was an increase in the City and East-end boxes of from £690 in 1884 to £730 on July 18th. By the special collection among cabmen—quite a new resource in the organisation—£170 was gained.

BOOKS ETC. RECEIVED.

BAILLIÈRE, TINDALL, & COX, King William-street, London.

The Causes and the Prevention of Blindness. By Dr. Ernst Fuchs. Translated by Dr. R. E. Dudgeon; with a few Notes by Dr. M. Roth. Prize Essay. pp. 230.

CHAPMAN & HALL, London.

Modern Science and Modern Thought. By S. Laing, Esq., M.P. pp. 320, with Illustrations.

CHURCHILL, J. & A., New Burlington-street, London.

Lectures on the Diagnosis of Diseases of the Brain. By W. R. Gowers, M.D., F.R.C.P. pp. 246, with Illustrations.

Health Resorts at Home and Abroad. *By M. Charteris, M.D.* pp. 156.

DAWSON BROTHERS, Montreal.

The Climate of Canada, and its Relations to Life and Health. By W. H. Hingstone, M.D. &c. pp. 266.

HIRSCHWALD, A., Berlin.

Ueber Acetonurie und Diaceturie. Von Dr. Rudolf von Jaksch. S. 156, mit 6 Holzschitten.

Weitere Untersuchungen über Ptomaine. Von Prof. Dr. L. Breiger. S. 83.

Die Gasanalyse und ihre physiologische Anwendung nach verbesserten Methoden. Von Dr. J. Geppert. pp. 129, mit 1 Lithog. Tafel und 13 Holzsch.

KELLY & Co., Great Queen-street, London.

Woven in Darkness: a Medley of Stories, Essays, and Dreamwork. By W. W. Penn. In 2 vols. pp. 451—454.

LEWIS, H. K., Gower-street, London.

The Anatomy of the Intestinal Canal and Peritoneum in Man. Hunterian Lectures, 1885. By Frederick Treves, F.R.C.S. pp. 66, with Illustrations.

A Guide to the Examination of the Urine. By J. Wickham Legg. Sixth Edition. pp. 120.

Ambulance Lectures: First Aid to the Injured. By Sam. Osborn, F.R.C.S. pp. 90, Illustrated.

Tracheotomy in Laryngeal Diphtheria, After-treatment and Complications. By R. W. Parker. Second Edition, Revised and considerably Enlarged. pp. 124.

A Practical Treatise on Diseases of the Kidneys and Urinary Derangements. By Charles H. Ralfe, M.A., M.D.Cantab., F.R.C.P.L. pp. 572, with Illustrations.

LONDON LITERARY SOCIETY, Strand.

Old Tales and Legends for Young People. By Annette L. Davey. Illustrated by E. G. Davey.

Gordon and other Poems. By George Abel. pp. 236.

LONGMANS, GREEN, & Co., Paternoster-row, London.

Our Dwellings, Healthy and Unhealthy. By Catherine M. Buckton. pp. 153, with numerous Illustrations.

Spectrum Analysis in its application to Terrestrial Substances and the Physical Constitution of the Heavenly Bodies. By the late Dr. H. Schellen. Translated by Jane and Caroline Lassell. Edited, with Notes, by Captain W. de W. Abney, R.E., F.R.S. Second Edition. pp. 629, with Coloured Plates, &c.

MACMILLAN & Co., Bedford-street, London.

Malthus and his Work. By James Bonar, M.A. pp. 432.

Overpressure in High Schools in Denmark. By Dr. Hertel. Translated from the Danish by C. G. Sörensen; with Introduction by Dr. Crichton Browne. pp. 148.

MASSON, G., Paris.

Les Microbes Pathogènes. Par le Dr. C. Artigalas. Recueillies et Redigées par G. Maurange. Première Fascicule, avec six Planches en couleur.

NEW SYDENHAM SOCIETY, London.

Clinical Lectures on the Practice of Medicine. By the late Robert J. Graves, M.D., F.R.S. To which is prefixed a Criticism by Prof. Trousseau. In 2 vols. Vol. II. pp. 651.

PUTNAM'S SONS, New York & London.

A Study of 397 Cases of Cancer of the Female Breast; with Clinical Observations. By Wellard Parker, M.D. pp. 103.

RICHTER, J. F., Hamburg.

Die Elephantiastichen Formen. Bearbeitet und herausgegeben von Dr. F. Esmarch und Dr. D. Kulenkampff. S. 291, mit 28 Tafeln.

Zymotische Skizzen. Gährungpilze — Krankheitspilze. Von Dr. M. Vogel. S. 600, mit vielen Heliotypen.

SMITH, ELDER, & Co., Waterloo-place, London.

Von Ziemssen's Handbook of General Therapeutics. In 7 vols. Vol. II.: Antipyretic Methods of Treatment; by Prof. C. v. Liebermeister. Antiphlogistic Methods of Treatment; by Prof. Th. Jürgensen. Epidermic, Endermic, and Hypodermic Administration of Medicines; by Prof. A. Eulenberg. Translated by Matthew Hay, M.D. pp. 510, with 12 Illustrations.

School Hygiene and Diseases Incidental to School Life. By Robert Farquharson, M.P., M.D., F.R.C.P.Lond. pp. 368.

TRÜBNER, KARL J., Strasburg.

Jahresbericht über die Fortschritte der Pharmakotherapie, Herausgegeben von Dr. E. R. Kobert. Erster Bund. S. 240.

VOGEL, F. C. W., Leipsig.

Anatomie Menschlicher Embryonen. Von Wilhelm His. III. Zur Geschichte der Organe. Mit 156 Abbeldungen im Texte und Atlas. (Tafel IX.—XIV. u. I*.)

Dust and the Dustbin; by Mrs. Sheil.—Traitement de la Migraine par le Massage; par le Dr. G. Norström. (Delahaye, Paris.)—Revista dos Cursos Praticos e Theoricos da Faculdade de Medicina do Rio de Janeiro; Redigida pelos Profs. de Gouvea, de Freitas, Lima e Castro, Martins Costa, and Coelho.—Notes of Visits to Contréxeville and Royat-les-Bains; by F. R. Cruise, M.D. (Fannin, Dublin.)—The Failure of Legislation in Limiting the Spread of Venereal Disease; by Drs. E. W. Allison and W. E. Ashton.—Further Observations on the Treatment of Stone in the Bladder; by Reginald Harrison, F.R.C.S.—Moisture and Dryness; by Chas. Denison, M.D., Chicago.—Studies from the Biological Laboratory of the Johns Hopkins University, Vol. III., No. 3.—The Bengal Medical Service. April, 1885; compiled by G. F. A. Harris, Surg. B.M.S. (Thacker, Spink, and Co., Calcutta.)—De la Coqueluche et de son Traitement par la Résorcine; par le Dr. Moncorvo. (Berthier, Paris.)—Lectures on the Compressed Air-bath and its Uses in the Treatment of Disease; by C. Theodore Williams, M.D.—Cremation; by J. G. Davey, M.D.—Index Bibliographique de la Presse et de la Librairie Médicales; par le Dr. C. Meyners d'Estrey; Tome I.—Bright Days; Holiday Number of Cassell's Magazine.—Sitzungsberichte der Gesellschaft für Morphologie und Physiologie in München, 1 Heft.—Die Radikalheilung der Diphtheritis ohne Nachkrankheiten im Kindersalter; von F. N. Kramer.—New Park for North London; by T. Eccleston Gibb.—Familiar Trees; Part I.; by G. S. Boulger, F.L.S.—Le Localilzzazioni Funzionali del Cervello; pel Dr. Luigi Luciani.—De l'Action de la Quinine dans le Fièvre Typhoïde.—Les Remèdes dit Specifiques sont des Agents Antizymasiques; par Prof. G. Pécholier.—An Anomalous Human Lung, having four Lobes on the Right Side; by Dr. W. A. Edwards.—Peninsular and Subpeninsula Air and Climates; by W. C. Van Ebber, M.D.—Good Words, Sunday Magazine, Leisure Hour, Sunday at Home, Boy's Own Paper, Girl's Own Paper, Friendly Greetings, August.—The Royal Wedding (*Graphic* Supplement).—Desolate and Oppressed; by C. G. Payne.—Popular Paper on Practical Nursing; by Herbert R. Mosse, M.B. (Hutchings and Crowsley)—Ueber die Bedentung der Commabacillen für die Cholera-Prophylaxe; von Dr. Drasche.—A Warning to Holders of Fire Policies.—Hints and Precautions against Cholera and Zymotic Diseases, Second Edition; by J. Weaver, M.D., Southport.—The Thermal Springs, Rotorna, N.Z by Alfred Ginders, M.D.—Double Congenital Displacement of Hip; by Buckminster Brown, M.D.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

DAVIS, ARTHUR RANDALL, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Sandgate District of the Elham Union, vice Howard, deceased.

DYSON, WILLIAM, B.A., M.D.Lond., has been appointed Physician to the Sheffield General Infirmary, and Joint-Lecturer in Medicine at the Sheffield School of Medicine, vice Dr H. F. Banham, resigned.

GINDERS, ALFRED, M.D. St. And., has been appointed on the Commission of the Peace for New Zealand, also Medical Superintendent of the Government Sanatorium and Bathing Establishment at Rotorua, Hot Springs District, New Zealand.

HEYCOCK, F. R., M.D., M.C., F.R.C.S.Ed., has been appointed Honorary Surgeon to St. Peter's Hospital for Stone, vice W. F. Teevan, F.R.C.S., appointed Consulting Surgeon.

JONES, JOHN HERVEY, M.B., M.R.C.S., has been appointed House-Surgeon to the Clinical Hospital for Women and Children, Manchester.

LITTLETON, PHILIP RICHARD, M.R.C.S., has been appointed Medical Officer for the Ashbourne District of the Ashbourne Union, vice Greaves, deceased.

MYERS, CHARLES JOHN, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the South District and Workhouse of the Louth Union, vice Ditchett.

NICOLL, ALEXANDER, M.B., C.M.Aber., has been appointed Government Medical Officer for Tambo, Queensland.

RILOT, CHAS. F., has been appointed Deputy Assistant House-Surgeon to the Dental Hospital of London.

SMITH, PROTHEROE, M.D., M.R.C.P.L., has been appointed Consulting Physician to the Hospital for Women, Soho-square.

VIPOND-CROCKER, J. C., L.D.S.Eng., has been appointed House-Surgeon to the Dental Hospital of London.

WASSE, GERVASE MILES, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Third District of the Okehampton Union.

WILLIAMS, H. LLOYD, L.D.S.Eng., has been appointed Assistant House-Surgeon to the Dental Hospital of London.

WOODROFFE, AUGUSTUS WARREN, M.B.Dub., L.R.C.S.I., has been appointed Medical Officer for the South-Western District of the Billesdon Union, vice Hargitt.

Births, Marriages, and Deaths.

BIRTHS.

BATEMAN.—On the 26th ult., at Whitehurst, Oxon, the wife of Francis Bateman, M.B.Lond., of a son.

GAYE.—On the 4th ult., at Kirkee, Bombay Presidency, the wife of Surgeon-Major Gaye, Medical Staff, of a son.

OPIE.—On the 20th ult., at Hartington Villas, Beckenham, the wife of Edward A. Opie, M.B., of a son.

VINEY.—On the 26th ult., at Harcourts, Chertsey, the wife of Dr. Viney, of a daughter.

WILDE.—On the 19th ult., at The Chestnuts, Crawley, Sussex, the wife of Frederick Wilde, M.R.C.S., L.S.A.Lond. (prematurely), of a daughter.

MARRIAGES.

DAVIS—JOICEY.—On the 22nd ult., at St. Mary Magdalene's Church, Richmond, Robert Davis, M.R.C.S., of Low Fell, Durham, to Ellen, elder daughter of the late Edward Joicey, Esq., of Whinney House, in the same county.

GODFREY—LITTLE.—On the 30th June, at Christ Church, Georgetown, Demerara, Joseph Edward Godfrey, M.B. and C.M., second son of B. J. Godfrey, to Alice Helena, youngest daughter of George Little, of Highbury-place, London.

JONES—STOREY.—On the 28th ult., at Seghill, Northumberland, by the Rev. W. Skene, D.D. (brother-in-law of the bride), assisted by the Rev. G. B. Jones (brother of the bridegroom), Charles G. Jones, L.R.C.P., M.R.C.S., Cardigan, to Emma, youngest daughter of the late James Storey, Esq., Newcastle-on-Tyne.

SHANN—FLOWER.—On the 23rd ult., at St. Luke's Church, Chelsea, by the Rev. Gerald Blunt, M.A., Rector, assisted by the Rev. Reginald Shann, M.A. (brother of the bridegroom), Henry Charles Shann, M.R.C.S.Eng. and L.R.C.P.Edin., of Micklegate, York, fourth surviving son of the late George Shann, Esq., M.D., of Petergate, York, to Caroline Mary, eldest daughter of Professor Flower, LL.D., F.R.S., F.R.C.S., &c., Director of the British Natural History Museum, of 26, Stanhope-gardens, Queen's-gate, S.W.

DEATHS.

BARNETT.—On the 24th ult., at Eastbourne, Sussex, from illness contracted on field service at Suakin, Deputy Surgeon-General Oliver Barnett, C.I.E., Army Medical Department.

CROZIER.—On the 26th ult., at Twickenham, George Crozier, M.R.C.S., late of Hindon, Wilts.

ELLIS.—On the 22nd ult., at Sunset, Westward Ho, North Devon, after a long illness, Robert Ellis, M.R.C.S., L.S.A., late of 63, Sloane-street, aged 62.

SHEPHERD.—On the 26th ult., at Brunt How, Ambleside, Augustus Burke Shepherd, M.D.Oxon, of Great Cumberland-place, Hyde-park, aged 46.

WITCHELL.—On the 26th ult., at The Acre, Stroud, Edwin Aubrey Witchell, M.B., C.M.Edin., in his 25th year.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, July 30th, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
July 24	30·31	S.E.	63	58	112	78	53	...	Hazy
,, 25	30·32	S.W.	68	61	110	88	59	...	Hazy
,, 26	30·37	E.	75	66	119	90	62	...	Hazy
,, 27	30·37	N.E.	80	67	126	88	65	...	Hazy
,, 28	30·35	E.	61	56	112	75	56	...	Overcast
,, 29	30·31	E.	62	57	113	70	57	...	Cloudy
,, 30	30·29	E.	60	57	...	...	56	...	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of* THE LANCET *to be addressed "To the Publisher."

AN EXCELLENT EXAMPLE.

IT was reported in an Aberdeen newspaper last week that Mr. George Dempsey, an innkeeper of that town, had handed over to the treasurer of the Royal Infirmary the sum of £1 10*s.* 9*d.*, being the amount received by him as extra price on whisky, &c., during the recent increase of spirit duty. Mr. Dempsey, being unable to ascertain the customers by whom the said sum was paid, took this mode of discharging himself of the public money in his hands. We commend this conscientious course of action to the licensed victuallers of the metropolis. If they will only pay in all the extra profits they have in a similar manner received to the Hospital Sunday or Saturday Funds, they will materially augment the total sum devoted this year to the good work of our hospitals.

Surgeon.—In the absence of any written contract, everything must depend on an appeal to good feeling. A month's notice at least should be given.

Duped.—6 & 7 Will. IV., c. 89, s. 5.

"COCAINE IN THE TREATMENT OF HAY FEVER."

To the Editor of THE LANCET.

SIR,—In your issue of July 11th I see a letter under the above heading by Dr. Abbotts. I cannot agree with him. I think, if properly used, a 2 per cent. solution in equal parts of vaseline and pure castor-oil would be a certain cure for hay and spasmodic asthma, painting the nostrils well with it morning and evening; and if an attack is coming on, place three or four drops of a 5 per cent. solution on the tongue three times daily. I have been a sufferer from bad spasmodic asthma for over fifteen years, and am quite well by using it as stated. Besides, I have had several other cases cured, if the effect lasts. I have found it most useful in post-nasal catarrh and many other diseases, and also good in eye cases. I am, Sir, yours faithfully,

TOM GELSTON, M.D.,
Limerick, July 27th, 1885. Surgeon, Co. Limerick Infirmary, &c.

E. H. C.—The returns from which such a statement as our correspondent suggests could be compiled have not yet been published.

"CONCOMITANTS OF MUMPS(?)."

To the Editor of THE LANCET.

SIR,—If your correspondent "O. C. J." will refer to the *British Medical Journal* for Oct. 6th and 27th, 1877, pp. 476 and 584, he will find there answers to both his questions, although an answer to the first may be found in nearly every text-book on Medicine.

I am, Sir, yours faithfully,
East Rudham, July 25th, 1885. ALAN REEVE MANBY.

EXTENSION OF THE DOCTRINE OF DISQUALIFICATION ON ACCOUNT OF MEDICAL RELIEF.

A CORRESPONDENT of the *Norwood News*—not a medical man—proposes that the head of every family whose doctor's bill for 1884 was not paid on or before the 25th of March last should be disqualified from voting at the next election. This gentleman evidently does not himself intend to ask for election. His proposal would be regarded as personal by a serious number of voters, who would be sure to take vengeance by placing him in a humiliating position on the poll. Has he considered the extent to which his proposal would disqualify existing voters? We respect both him and his proposal; but we fear his tests are a little too good in this rough age.

A Ratepayer.—1. The guardians have power to do much as they like in this matter, and could not be made to refund (even if they were in the wrong), except by expensive law proceedings. "Ratepayer" could state his case before them at their next board meeting; but the chances are they would not give him a hearing.—2. Yes. It is generally allowed by boards of guardians that their medical officers may employ unqualified assistants; but the practice is discouraged by the Central Authority, and the medical officer is held responsible if anything untoward occurs.

Medicus.—A committee is at present engaged in investigating the truth of such statements. It will be better to wait for their report.

THE TITLE OF "DOCTOR."

To the Editor of THE LANCET.

SIR,—While acknowledging the fact that medical students who pursue their studies in London labour under great disadvantages as compared with Scotch and Irish students with regard to obtaining the degree of M.D., I think the plan proposed by Dr. Moxon—viz., to grant this degree to everyone who obtains the double qualification—would not meet with the wishes of the profession generally. I think this is more than any of them expect, and in many cases, as I shall afterwards show, would be more than some students deserve. Will Dr. Moxon pardon me if I propose a modification of his scheme, which I feel sure would satisfy the majority of students and doubly qualified men? Let all men who obtain the double licence have the acknowledged right of being styled "doctors" (not M.D.'s); also let the conjoint colleges have the power of instituting a second and higher examination, upon the passing of which the successful candidates should have the degree of M.D. conferred upon them. The candidates for this examination should be doubly qualified men of so many years' standing, thus following the example of the Durham University. This would enable those who felt inclined for extra work to obtain a higher diploma, and would also afford an inducement to medical men to keep up their reading. I was rather surprised, when up at Durham in June last, to hear from one of the students that a very large percentage of their number take merely the College licences, simply because there is extra work to do for their M.D. degree. I believe also many at the Scotch Universities simply content themselves with obtaining the ordinary diplomas. In both these cases there is nothing to prevent them from taking their degree if they wished, as their residence and hospital terms are kept together. Under Dr. Moxon's scheme these men would be made M.D.'s in spite of themselves, so to speak, and these are the class to which I have referred as those who do not deserve the privilege Dr. Moxon would give them. I suppose, however, any such change or modification would take some years to accomplish; but in the meantime I think the Durham University would render the boon which they have already granted to practitioners, doubly acceptable if they would in a very slight degree modify their present regulations, and allow men to present themselves for the M.D. degree after fifteen years' practice, without compelling them to wait until they are over forty years of age, and also to remit surgery to those who were members of the College of Surgeons. Such alterations would, I think, in no wise affect the present value of their degree.

I am, yours truly,

Lower Norwood, July 27th, 1885. JOHN B. HARRIS, M.D. Dur.

"SUMMER RAMBLES IN A CARAVAN."

IN the *Leisure Hour* for August is an entertaining article, or rather the commencement of one, setting forth the advantages and disadvantages—although the former largely predominate—of a caravan as a means of holiday rambles. The writer, Gordon Staples, M.D., R.N., in a light and attractive style, describes minutely the vehicle he used in his excursion, with its fittings and arrangements; the independence enjoyed in this method of travelling; the incidents, humorous and grave, occurring on the road; and altogether presents a sketch which is calculated to tempt many who may be in doubt as to how best to spend a few weeks of summer recreation to follow his example.

Surgeon.—The publication of the letter would not, we think, have the effect suggested. Moreover, the Medical Council has distinctly declared its function in the matter of dealing with offenders to be administrative and judicial.

West Cornwall.—1. London Temperance Hospital, Hampstead-road, N.W.—2. Messrs. Corbyn and Son, Holborn.

OPENINGS IN NEW ZEALAND.

THE *Edin. Med. Miss. Society's Magazine* gives the following letter to the editor, written from Warpukurau, Napier, New Zealand:—

"I wish some steady young doctors would come out to this part of the colony. It would be a great benefit if these doctors had some regard for religion. At present we are here in need of a medical missionary, or a medical man who would occasionally conduct religious services. His station would be at present an outlying one, where there is no doctor within forty-five miles, and where a minister preaches only about four times a year. The district is well able to give a suitable man £300 a year. There is another district in the Wairarapu, near Wellington, where the people are prepared to give £300 yearly in addition to his practice for a good Christian doctor; and between his practice and the amount promised he would have at least £500 a year. If you know of a young doctor who has a character for piety, or even a regard for religion, you would greatly oblige me by bringing these openings under his notice."

Dr. R. v. Baracz (Lemberg).—The report has been received, and is under consideration.

Mr. C. E. Humphreys.—The paper will appear very shortly.

ALKALOIDS IN URINE.

To the Editor of THE LANCET.

SIR,—It may interest some of your readers to know that some time ago M. Tanret stated, on the faith of an Italian MS., that the Borgia poison was made by digesting ergot of rye in human urine. Perhaps some reader of THE LANCET has it in his power to give references or quotations from works not easily accessible where the symptoms of the Borgia-poisoned victims are given. At the same time a toxicological note on *Aequa profana* and *poudre de succession* would be acceptable, especially with regard to the latter. Much exaggeration there was, doubtless, about it; but still there seems to be a basis for the idea that it acted through the skin as well as when absorbed by the mucous membrane.

I am, Sir, yours faithfully,

July 29th, 1885. M.D.

HOSPITAL TENTS.

WE have received from Bangkok, Siam, a letter addressed by M. de Richelieu, the captain of the Royal Yacht *Vesatri*, giving a description of a portable tent he has invented, which he thinks superior to anything of the kind, and "the perfect realisation of the idea" of a tent. So far as we can judge from his description, it resembles a *tente d'abri*. Captain Richelieu proposes to supply patterns to the British War Department, and to give it the exclusive right in British territory of making and using these tents, on condition that they shall be known by his name, and that he shall receive for the privilege the modest sum of forty thousand pounds!

J. S.—There could be no reasonable objection to the course suggested, provided it had the full concurrence of both parties.

TREATMENT OF CHOLERA.

To the Editor of THE LANCET.

SIR,—Among the various articles that have lately appeared on the treatment of cholera I have seen no allusion to Dr. Farkin's treatment by carbonic acid, given in effervescent draughts. I shall be grateful for any information from anyone who may have tried it in the late epidemics. As Malaga has long possessed a perfect water-supply, impossible to contaminate, the advent of cholera will give some useful data as to the dissemination of the disease by water. It seems probable that the improved water-supply of Madrid accounts for the slow progress of the disease there up to the present time. We have no signs at present, but the foe is uncomfortably near.—I am, Sir, yours faithfully,

Malaga, July, 1885. CLARENCE VISICK.

HARROGATE AND MERCURIAL INUNCTION.

To the Editor of THE LANCET.

SIR,—It has often seemed to me strange that an attempt has not hitherto been made at one of our own sulphur spas to secure the good results in the treatment of syphilitic cases by sulphur baths and mercurial inunction which Brandis reports as attainable by these means at Aachen. That such results can be obtained at home I am fully persuaded by my experience of the mercurial treatment carried out at my suggestion in one of the bathing establishments of Harrogate. Perhaps the knowledge of this fact may be acceptable to many in the profession who wish to spare their patients the discomforts and inconveniences of going abroad.

I am, Sir, your obedient servant.

Harrogate, July 27th, 1885. GEORGE OLIVER, M.D. Lond.

THE LATE MR. LOTAN.

IN relation to the case of Mr. Lotan, the rural sanitary inspector of Northampton, whose death in the performance of his duties we announced last week, Mr. Tomlinson, district medical officer, writes to *The Times*, appealing for help for the deceased's widow, who appears to have been left entirely destitute.

ERRATUM.—In the review of Dr. G. Oliver's book last week an important typographical error escaped correction. In the eighth line from the bottom of the column, page 157, for "chyluria" read *chaluria*.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. George Johnson, London; Dr. Urquhart, Dublin; Mr. H. Robson; Dr. F. J. Allan, London; Dr. Fenwick, London; Dr. Churton, Leeds; Dr. T. Oliver, Newcastle-on-Tyne; Mr. T. H. Browne, Southport; Mr. Jas. Wheeler, Ilfracombe; Mr. Alex. Hill, Cambridge; Mr. Huggard; Dr. Lockhart Robertson, Bad Tarasp; Dr. David Bradley, Chesterfield; Mr. R. Harrison, Liverpool; Mr. J. Poland, London; Dr. W. B. Hadden, London; Mr. G. St. George, Lisburn; Lady John Manners, London; Mr. C. G. Payne, London; Dr. Bonavia, Etawah; Mr. E. Hurry Fenwick, London; Dr. Herbert Tibbits, London; Dr. W. A. Duncan, London; Dr. Geo. Oliver, Harrogate; Mr. H. de Méric, London; Dr. Curran, London; Mr. R. Jeffreys, Chesterfield; Mr. A. Pring, Clifton; Mr. A. R. Manby, East Rudham; Mr. J. E. Foster, Ipswich; Mr. Visick, Malaga; Mr. Marsden, Bedlington; Mr. Loch, London; Mr. J. R. Harris, London; Dr. Elder, Nottingham; Mr. H. Campbell, London; Dr. Tilt, London; Dr. Douglas, Perth; Dr. J. B. Harris, Norwood; Dr. Ginders, Rotorua; Dr. Buckley, Manchester; Mr. Jones, Southport; Mr. Hughes, Droitwich; Mr. Armstrong, Manchester; Mr. Boole, London; Dr. Diver, Kenley; Messrs. Cornish Bros., Birmingham; Mr. Stevens, Reading; Messrs. Smith and Son, Dublin; Dr. Gelston, Limerick; Dr. Royle, Jersey; Mr. Wilkins, Westward Ho; Mr. Wheeler, Ilfracombe; Messrs. Mawson and Son, Newcastle-on-Tyne; Dr. Dolan, Halifax; Messrs. Manlove and Co., Nottingham; Mr. Rutley, London; Mr. Collins, Hurst Green; Mr. Williams, Sheffield; Mr. Kinder, Leicester; Messrs. Lennon and Co., London; Mr. Youngman, Lowestoft; Mr. Burke, Hammersmith; Mr. Bradshaw, Preston; Mr. Letting, Sevenage; Mrs. Bell, Christchurch; Messrs. Roberts and Co., London; Mr. Kershaw, London; Mrs. Tillett, Dudley; Mr. Curtice, Harrogate; Mrs. Hubbard, London; M.D.; F. P.; Surgeon; Malaga; M.R.C.S., L.S.A.; Cairo; Medicus, Halifax; Medicus.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Twyford; Mr. Martindale, London; Mr. McEnery, Sherborne; Mr. Taylor, London; Mr. Wake, Devonport; Dr. Day, London; Mr. Forde, Thermoy; Mr. Wareham, Clevedon; Mr. Barlow, Birmingham; Mr. Kerr, Garston; Messrs. Norman and Co., Cheltenham; Mr. Ayling, Fareham; Miss Chreiman, Kensington; Messrs. Mackay, Edinburgh; Dr. Patti, Edinburgh; Mr. Bateman, Whitchurch; Mr. Burcombe, Lincoln; Dr. Glissen, St. George; Mr. Hamel; Messrs. Potter and Sons, London; Mr. Brockelbank, Liverpool; Messrs. Southall and Co., Birmingham; Mr. Ellis, Westward Ho; Mr. Lockwood, Kirkburton; Mr. Steadman, Godalming; Messrs. Symons and Co., Liverpool; Mr. Hope, London; Miss Moorhouse, London; Messrs. Lee and Nightingale, Liverpool; Mr. Witchell, Stroud; Mr. Hodgkin, Uxbridge; Messrs. Claye and Son, Manchester; Messrs. Widenham and Co., Lime-street; Mr. Codling, Lancaster; Mr. Lever, Stratford-on-Avon; Mr. Lloyd, London; Mr. Wiglesworth, Ashford; Mr. Cox, Bristol; Mr. Hulme, Birmingham; Mr. Kirkby, Leeds; Dr. Norton, Staplehurst; Dr. Crowther, Luddenfoot; Mr. Grinling, Burton-on-Trent; Miss Pudney, Earl's Colne; Messrs. Robertson and Scott, Edinburgh; Mr. Adams, London; Mr. Marrack, Truro; Mr. Francis, Blackheath; Mrs. Jones, Cardigan; Dr. Ferguson, Perth; Mr. Shore, Southampton; Mr. Gant, Hastings; Dr. Richards, Ross; Dr. Moore, Rothwell; Dr. Needham, Barnwood; Messrs. Slinger and Son, York; Mr. Turner, Colchester; Medicus, London; A. B., Shepherd's Bush; W. E. A., Tewkesbury; Beta, Warrington; T. W. L. B., Great Yarmouth; F.R.C.S., London; Secretary, Manchester Infirmary; F. O., Halifax; Surgeon, Manchester; B., Hatherstone; W. B., Congleton; M.D., London; Medicus, Minchinhampton; Medicus, Reading; R. B., Leith; Dorcas; H. M. P., Bretton; B. J.; J. H.; Argus; C., Cheltenham; Medicus, Tredegar; Medicus, Liverpool; Alpha; Surgeon, Brentford; I. B. D., Upton; M.D., London; A. X. Y.

Edinburgh Evening News, Topical Times, Melbourne Liberator, Glasgow Evening News, Grey River Argus, Oldham Standard, Animal World, Sussex Daily News, &c., have been received.

Medical Diary for the ensuing Week.

Monday, August 3.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

Tuesday, August 4.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
MEDICO-PSYCHOLOGICAL ASSOCIATION.—Annual General Meeting at Cork, under the Presidency of Dr. Eames: Meeting of Council, 10.30 A.M. Meeting of Association, 11 A.M. Afternoon Meeting, 2 P.M.: Address by Dr. Eames, and Discussion.—Dr. Hack Tuke: A case of Moral Insanity.

Wednesday, August 5.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department: 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.

Thursday, August 6.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Friday, August 7.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

Saturday, August 8.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
MIDDLESEX HOSPITAL.—Operations, 2 P.M.

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Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris